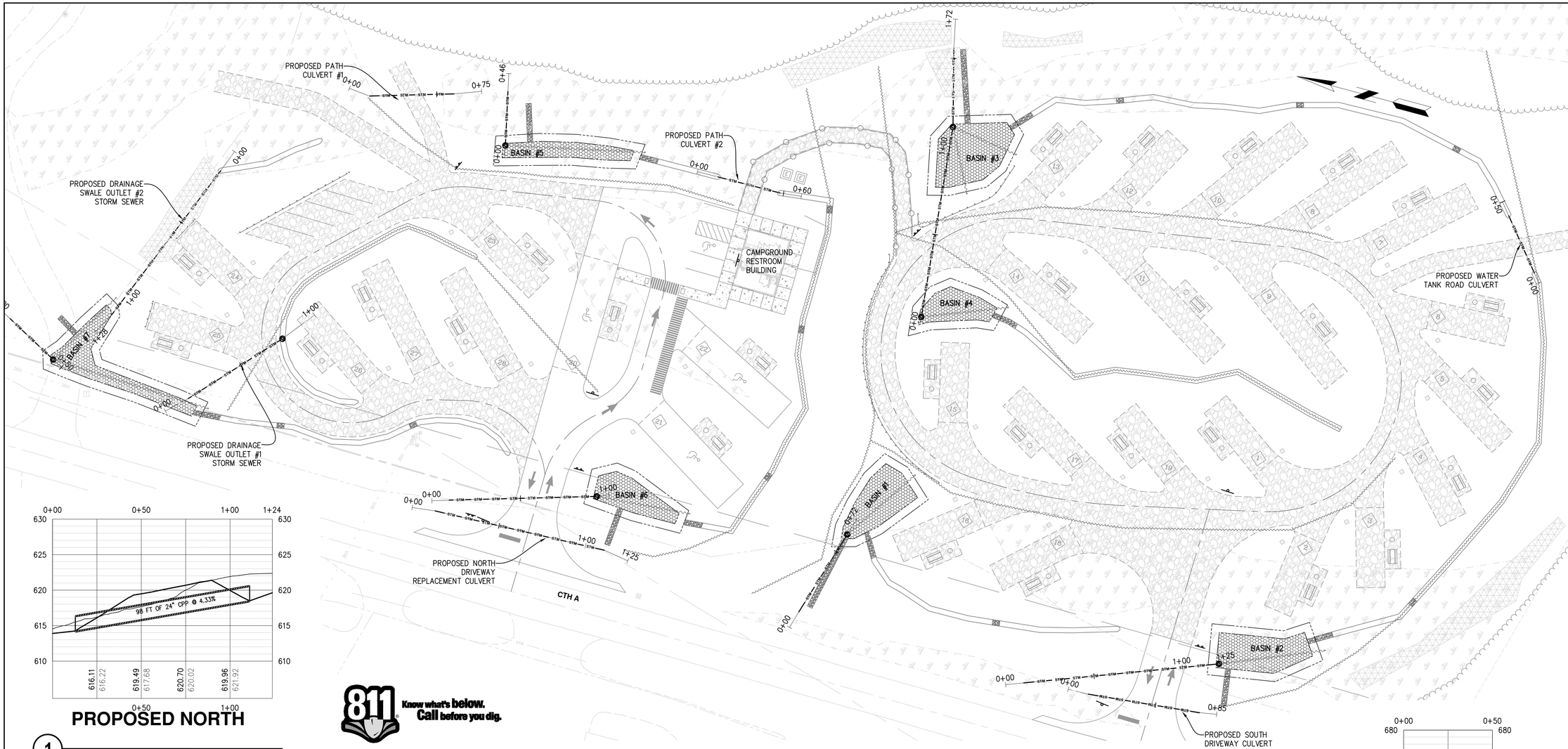
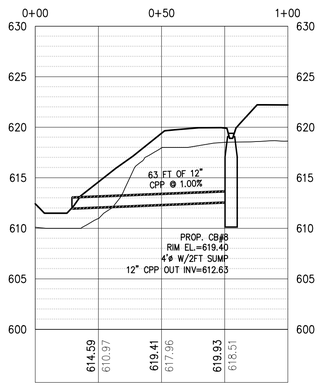
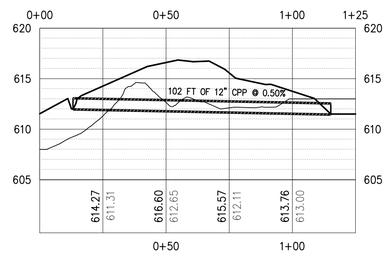


PROPOSED NORTH

1 SCALE: HORIZONTAL: 1" = 30'
VERTICAL: 1" = 7.5'

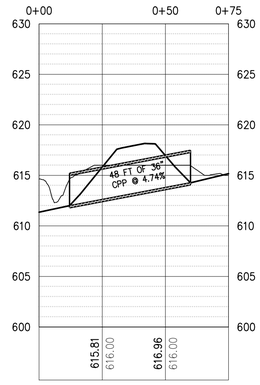


2 SCALE: HORIZONTAL: 1" = 30'
VERTICAL: 1" = 7.5'



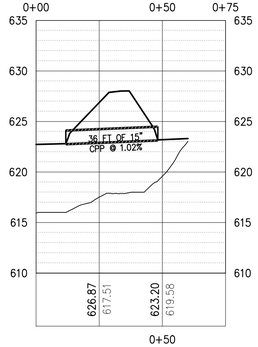
PROPOSED DRAINAGE SWALE OUTLET #2

3 SCALE: HORIZONTAL: 1" = 30'
VERTICAL: 1" = 7.5'



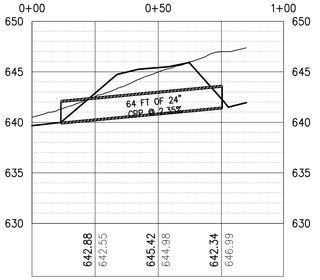
PROPOSED PATH CULVERT #1

4 SCALE: HORIZONTAL: 1" = 30'
VERTICAL: 1" = 7.5'



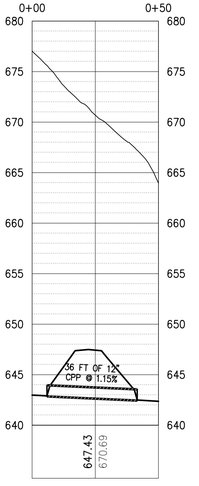
PROPOSED PATH CULVERT #2

5 SCALE: HORIZONTAL: 1" = 30'
VERTICAL: 1" = 7.5'



PROPOSED SOUTH DRIVEWAY CULVERT

6 SCALE: HORIZONTAL: 1" = 30'
VERTICAL: 1" = 7.5'



PROPOSED WATER TANK ROAD CULVERT

7 SCALE: HORIZONTAL: 1" = 30'
VERTICAL: 1" = 7.5'

811 Know what's below. Call before you dig.

Foth / UPEA ENGINEERS & ARCHITECTS / SMITHGROUP

BID DRAWINGS
MARINA RECONSTRUCTION, CONTRACT 4
SAXON HARBOR RECONSTRUCTION
FEMA DISASTER #4276
IRON COUNTY FORESTRY
AND PARKS DEPARTMENT
HURLEY, WISCONSIN

IRON COUNTY WISCONSIN

NO.	BY	DATE	REVISIONS DESCRIPTION
1	UPEA	3/5/19	BIDDING

NOT FOR CONSTRUCTION

RECORD DRAWINGS OF COMPLETED CONSTRUCTION BY:
RECORD DRAWINGS OF COMPLETED CONSTRUCTION CONFORMING TO CONTRACTOR AND/OR OWNERS RECORDS
BY _____ DATE _____

DATE OF PREPARATION

	BY	DATE
SURVEYED		
DRAWN	L.G.H.	
DESIGNED	A.S.J.	
CHECKED		

PROPOSED CAMPGROUND AREA-STORM SEWER PROFILES

HORIZONTAL SCALE:
0

PROJECT ID: 171007.00

C602

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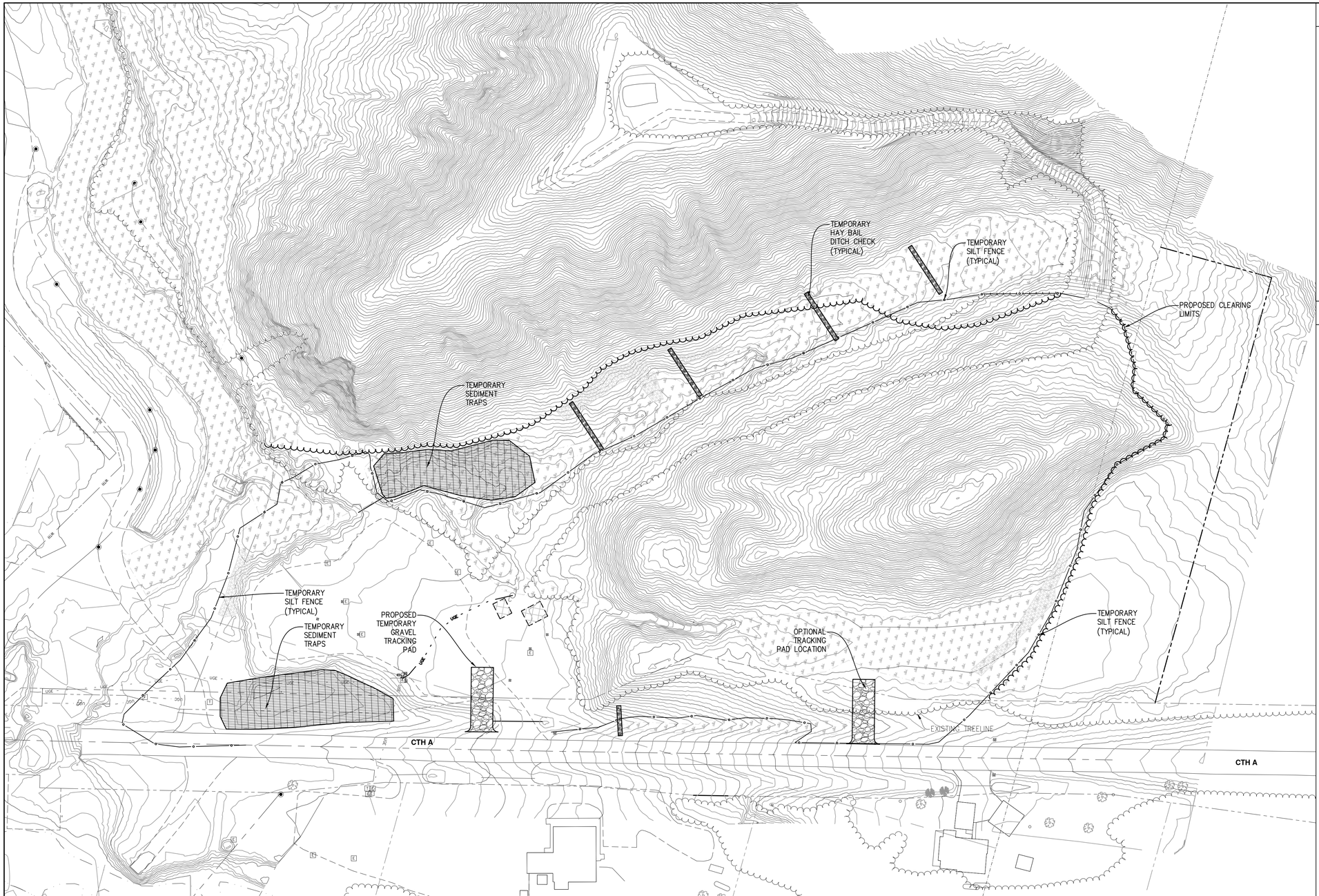
3/5/2019 10:06 AM lhyrkas



SHEET NOTES

1. CONTRACTOR REQUIRED TO INSTALL/UTILIZE ANY ADDITIONAL BMPS REQUIRED TO COMPLY WITH ALL PERMITS/STATUTES BY LOCAL/STATE/FEDERAL AGENCIES.
2. TRACKING PADS TO BE LOCATED BY CONTRACTOR AT ANY LOCATION WHERE HAULING EQUIPMENTS EXITS SITE.
3. TRACKING PAD SHALL BE PER WISDOT STANDARD & DETAIL: 8e14.
4. CONTRACTOR RESPONSIBLE TO RESTORE ANY AND ALL AREAS DISTURBED OR DAMAGED OUTSIDE THE OWNERS PROPERTY AT NO ADDITIONAL COST TO THE PROJECT.
5. TEMPORARY DITCH CHECKS TO BE INSTALLED PER WISDOT STANDARD & DETAIL: 8e8.
6. SILT FENCE TO BE INSTALLED AT TOE OF SLOPE AT EXCAVATED AREAS. CONTRACTOR WILL BE REQUIRED TO RELOCATE SILT FENCE AS NEEDED TO ALLOW FOR FILLING/EXCAVATING OPERATIONS AND MAINTAIN SOIL EROSION PROTECTION TO EXISTING DRAINAGES/DITCHES/SWALES.

LEGEND

- MISC. POST/BOLLARD
- WELL
- MAIL BOX
- TEST PIT
- WATER SPIGOT
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- TELEPHONE PEDESTAL
- ELECTRICAL PEDESTAL
- EX. BITUMINOUS
- EX. CONCRETE
- WETLAND
- MISC. PROPERTY CORNER
- BENCHMARK
- CONTROL POINT
- SOIL BORING
- SINGLE POLE SIGN
- DOUBLE POLE SIGN
- TREE (CONIFER)
- TREE (DECIDUOUS)
- CLEANOUT
- BUILDING (TO BE REMOVED)
- REMOVE TREES
- OVERHEAD ELECTRIC LINE
- WATER LINE
- UNDERGROUND TELEPHONE
- UNDERGROUND ELECTRIC
- STORM SEWER
- SANITARY SEWER
- BOUNDARY LINE, SUBJECT PROPERTY
- RIGHT OF WAY LINES
- APPROX. ADJACENT PROPERTY LINES
- TEMPORARY GRADING EASEMENT
- TREE LINE
- PROPOSED SILT FENCE

Know what's **below.** **Call** before you dig. 811

Foth / UPEA ENGINEERS & ARCHITECTS / SMITHGROUP

BID DRAWINGS
MARINA RECONSTRUCTION, CONTRACT 4
SAXON HARBOR RECONSTRUCTION
FEMA DISASTER #4276
IRON COUNTY FORESTRY
AND PARKS DEPARTMENT
HURLEY, WISCONSIN

IRON COUNTY WISCONSIN

NO.	BY	DATE	REVISIONS DESCRIPTION
1	UPEA	3/7/19	BIDDING

NOT FOR CONSTRUCTION

RECORD DRAWING OF COMPLETED CONSTRUCTION BY:
RECORD DRAWINGS OF COMPLETED CONSTRUCTION CONFORMING TO CONTRACTOR AND/OR OWNERS RECORDS
BY ____ DATE ____

DATE OF PREPARATION

	BY	DATE
SURVEYED		
DRAWN		
DESIGNED		
CHECKED		

PROPOSED CAMPGROUND AREA - TEMPORARY SESC PLAN

HORIZONTAL SCALE:
0

PROJECT ID: 17I007.00

C700

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3/5/2019 10:07 AM lhyrkas

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES

SEE SHEET C703 FOR DETAILS, INSTALLATION INSTRUCTIONS, & MAINTENANCE FOR EROSION CONTROL MEASURES.

KEY	DETAIL	CHARACTERISTICS
5	SEEDING	INEXPENSIVE AND VERY EFFECTIVE. STABILIZES SOIL, THUS MINIMIZING EROSION. PERMITS RUNOFF TO INFILTRATE SOIL, REDUCING RUNOFF VOLUME. SHOULD INCLUDE PREPARED TOPSOIL BED.
13	RIPRAP, RUBBLE GABIONS	USED WHERE VEGETATION IS NOT EASILY ESTABLISHED. EFFECTIVE FOR HIGH VELOCITIES OR HIGH CONCENTRATIONS. PERMITS RUNOFF TO INFILTRATE SOIL
24	GRASSED WATERWAY	MUCH MORE STABLE FORM OF DRAINAGEWAY THAN BARE CHANNEL. GRASS TENDS TO SLOW RUNOFF AND FILTER OUT SEDIMENT. USED WHERE BARE CHANNEL WOULD BE ERODED.
54	GEOTEXTILE SILT FENCE	USE GEOTEXTILE AND AND POSTS OR POLES MAY BE CONSTRUCTED OR PREPACKAGED EASY TO CONSTRUCT AND LOCATE AS NECESSARY
58	CHECK DAM	CAN BE CONSTRUCTED ACROSS DITCHES OR ANY AREA OF CONCENTRATED FLOW. PROTECTS VEGETATION IN EARLY STAGES OF GROWTH. A CHECK DAM IS INTENDED TO REDUCE WATER VELOCITIES AND COLLECT SEDIMENT. A CHECK DAM IS NOT A FILTERING DEVICE.

XX T TEMPORARY MEASURE

YY P PERMANENT MEASURE

SHEET NOTES

1. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE SWPPP ON THE SITE FOR THE DURATION OF CONSTRUCTION.
2. THE CONTRACTOR SHALL ADHERE TO THE SWPPP DURING CONSTRUCTION OPERATIONS.
3. THE SWPPP INCLUDES SPECIFICATION SECTION 01150, THE SWPPP NARRATIVE AND ASSOCIATED APPENDICES, AND THE SWPPP DRAWINGS AND ASSOCIATED DETAIL SHEETS.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN AND REPAIR ALL BMPS DURING CONSTRUCTION.
5. ALL EARTH-DISTURBING CONSTRUCTION ACTIVITIES SHALL BE PERFORMED WITHIN THE LIMITS OF DISTURBANCE AS INDICATED ON THE SWPPP DRAWINGS.
6. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE LIMITS OF DISTURBANCE SHOWN ON THE DRAWINGS AND FIELD-STAKING THE LIMIT OF DISTURBANCE LINE PRIOR TO THE START OF CONSTRUCTION.
7. PERIMETER EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO THE START OF ANY LAND CLEARING OR GRADING ACTIVITIES.
8. THE CONTRACTOR SHALL APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES WHEN REQUIRED BY THESE PLAN DRAWINGS AND IMPLEMENT ADDITIONAL MEASURES AS DICTATED BY SITE CONDITIONS.
9. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY SEDIMENTATION RESULTING FROM WORK ON THIS SITE IS CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS.
10. SLOPES ARE TO BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
11. CONTRACTOR LAYDOWN, STAGING AND STOCKPILE AREAS ARE TO BE LOCATED WITHIN THE PERMITTED LIMITS OF DISTURBANCE.
12. SILT FENCE IS TO BE INSTALLED AROUND THE PERIMETER OF ON-SITE SOIL STOCKPILE AREAS AS DICTATED BY SITE CONDITIONS. ADDITIONALLY, INACTIVE PORTIONS OF THE STOCKPILE AREAS ARE TO BE STABILIZED AS REQUIRED HEREIN.
13. IMPLEMENT TEMPORARY STABILIZATION MEASURES ON ANY DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES WILL NOT RESUME FOR 14 DAYS OR MORE. IMPLEMENTATION OF TEMPORARY STABILIZATION MEASURES MUST BE INITIATED IMMEDIATELY AND COMPLETED WITHIN SEVEN (7) DAYS FROM WHEN CONSTRUCTION ACTIVITIES TEMPORARILY CEASED ON ANY PORTION OF THE SITE.
14. EXPOSED AREAS ARE TO BE SEEDED/STABILIZED AS SPECIFIED WITHIN SEVEN (7) DAYS FOLLOWING THE CONCLUSION OF FINAL GRADING IN THAT AREA.
15. THE CONTRACTOR IS RESPONSIBLE FOR REGULARLY CHECKING SEEDED AREAS TO SEE THAT A GOOD STAND OF VEGETATION IS ESTABLISHED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED. THE CONTRACTOR IS RESPONSIBLE TO ENSURE VEGETATION IS ESTABLISHED FOR A WARRANTY PERIOD OF TWO FULL GROWING SEASONS.
16. TRACKING OF SOIL AND SEDIMENT ONTO OFF-SITE ROADWAYS SHALL BE MINIMIZED THROUGH THE USE OF APPROPRIATE MEASURES. THE CONTRACTOR SHALL IMMEDIATELY REMOVE ANY SOIL OR SEDIMENT TRACKED ONTO THE ROADWAYS.
17. THE CONTRACTOR SHALL BRING TO THE SITE AND USE ONLY EQUIPMENT THAT IS WELL-MAINTAINED AND WITHOUT LEAKS.
18. NO VEHICLES AND EQUIPMENT CLEANING IS ALLOWED AT LOCATIONS WHERE RUNOFF SHALL FLOW DIRECTLY INTO A WATER COURSE.
19. EMPTY CANISTERS, CANS, OR OTHER CHEMICAL CONTAINERS (I.E.FROM HYDRAULIC FLUIDS, ETC.) AND ALL OTHER WASTE MATERIALS ARE TO BE KEPT IN APPROPRIATE SEALED WASTE CONTAINERS UNTIL THEY CAN BE REMOVED FROM THE SITE FOR PROPER OFF-SITE DISPOSAL.

LEGEND

- T TELEPHONE PEDESTAL
- E ELECTRICAL PEDESTAL
- MISC. PROPERTY CORNER
- M MAIL BOX
- EX. BITUMINOUS
- PROP. GRAVEL
- WETLAND
- PROP. CONCRETE
- STORM SEWER
- BOUNDARY LINE, SUBJECT PROPERTY
- RIGHT OF WAY LINES
- APPROX. ADJACENT PROPERTY LINES
- SETBACK LINE
- TEMPORARY GRADING EASEMENT
- TREE LINE
- SILT FENCING
- CAMPSITE NUMBER
- PROPOSED UNDERDRAIN

811 Know what's below. Call before you dig.

Foth / UPEA ENGINEERS & ARCHITECTS / SMITHGROUP

BID DRAWINGS
MARINA RECONSTRUCTION, CONTRACT 4
SAXON HARBOR RECONSTRUCTION
FEMA DISASTER #4276
IRON COUNTY FORESTRY
AND PARKS DEPARTMENT
HURLEY, WISCONSIN

IRON COUNTY WISCONSIN

NO.	BY	DATE	REVISIONS DESCRIPTION
1	LJPS	3/5/19	BIDDING

NOT FOR CONSTRUCTION

RECORD DRAWING OF COMPLETED CONSTRUCTION BY:
RECORD DRAWINGS OF COMPLETED CONSTRUCTION CONFORMING TO CONTRACTOR AND/OR OWNERS RECORDS.
BY _____
DATE _____

DATE OF PREPARATION

	BY	DATE
SURVEYED		
DRAWN	L.G.H.	
DESIGNED		
CHECKED		

PROPOSED CAMPGROUND AREA - PREMANENT SESC PLAN

HORIZONTAL SCALE: 0 40 80

PROJECT ID: 17I007.00

C701

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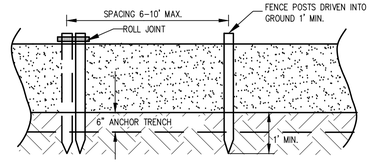
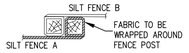
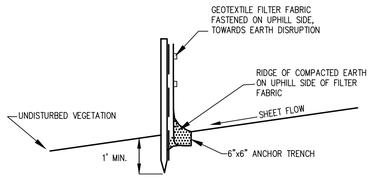




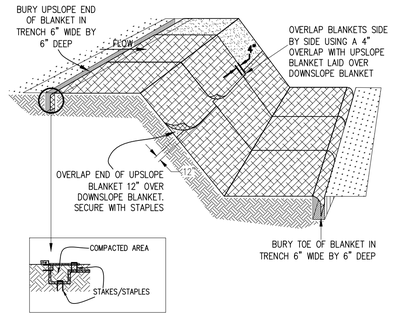
ROLL JOINTS



INSTALLATION
1. INSTALL PARALLEL TO A CONTOUR.
2. THE SILT FENCE SHOULD BE MADE OF WOVEN GEOTEXTILE FABRIC.
3. SILT FENCE SHOULD ACCOMMODATE NO MORE THAN 1/2 TO 1 ACRE OF DRAINAGE PER 100' OF FENCE AND ON SLOPES LESS THAN 1:2 (V:H).
4. DIG A 6" TRENCH ALONG THE AREA WHERE THE FENCE IS TO BE INSTALLED.
5. PLACE 6" OF THE SILT FENCE BOTTOM FLAP INTO THE TRENCH.
6. BACKFILL THE TRENCH WITH SOIL AND COMPACT THE SOIL ON BOTH SIDES. CREATE A SMALL RIDGE ON THE UP-SLOPE SIDE OF THE FENCE.
7. INSTALL WOODEN STAKES 6 – 10' APART AND DRIVE INTO THE GROUND A MINIMUM OF 12".
8. STAPLE THE GEOTEXTILE FABRIC TO THE WOODEN STAKES.
9. JOIN SECTIONS OF SILT FENCE BY WRAPPING ENDS TOGETHER (SEE DRAWING).

MAINTENANCE
- INSPECT FREQUENTLY AND IMMEDIATELY AFTER EACH STORM EVENT. CHECK SEVERAL TIMES DURING PROLONGED STORM EVENTS. IF NECESSARY, REPAIR IMMEDIATELY.
- IF THE SEDIMENT HAS REACHED 1/3 THE HEIGHT OF THE FENCE, THE SOIL SHOULD BE REMOVED AND DISPOSED OF IN A STABLE UPLAND SITE.
- THE FENCE SHOULD BE RE-INSTALLED IF WATER IS SEEPING UNDERNEATH IT OR IF THE FENCE HAS BECOME INEFFECTIVE.
- SILT FENCE SHOULD BE REMOVED ONCE VEGETATION IS ESTABLISHED AND UP-SLOPE AREA HAS STABILIZED.
- SILT FENCE MAY CAUSE TEMPORARY PONDING AND COULD FAIL IF TOO MUCH WATER FLOWS THROUGH THE AREA.
- DO NOT USE IN AREAS WITH CONCENTRATED FLOWS.
- CHANCE OF FAILURE INCREASES IF FENCE IS INSTALLED INCORRECTLY OR IF SEDIMENT ACCUMULATION IS NOT REMOVED.

1 GEOTEXTILE SILT FENCE
NOT TO SCALE

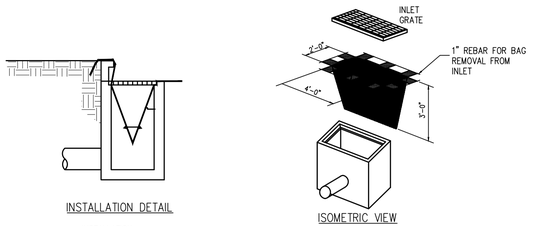


NOTES:
1 PLACE EROSION CONTROL BLANKET PARALLEL TO FLOW AND ANCHOR SECURELY.
2 WHEN BLANKETS ARE USED IN FLOWING DITCH, BLANKETS SHOULD NOT OVERLAP IN DITCH CENTER PARALLEL TO FLOW.
3 STAPLES INSTALLED/SECURED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
4 WHERE POSSIBLE, CONSTRUCT WITH BIODEGRADABLE MATERIAL.

INSTALLATION
1. PREPARE SUBGRADE TO PROPER GRADE AND COMPACTION REQUIREMENTS.
2. REMOVE RUTS, ROOTS, SOIL CLODS, OR OTHER DEBRIS FROM SURFACE SUBJECT TO MULCH BLANKET INSTALLATION.
3. SPREAD OR DRILL SEED.
4. CONSULT WITH EROSION CONTROL MATERIAL SUPPLIER TO SELECT EROSION CONTROL BLANKET BASED ON SLOPE GRADIENT, EXPECTED SURFACE RUN-OFF, AND PROTECTION TERM NECESSARY (LONG OR SHORT TERM).
5. POSITION SELECTED MULCH BLANKET AS CLOSE AS POSSIBLE TO INTENDED USE LOCATION.
6. INSTALL BLANKET AT TOP OF SLOPE, FIRST ANCHORING TOE IN TRENCH 6" WIDE X 6" DEEP, PROGRESSING DOWN-SLOPE OR DOWN-GRADIENT WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH.
7. ANCHOR THE BLANKET WITH STAPLES/STAKES PLACED APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER SECURING.
8. APPLY SEED TO COMPACTED SOIL AND FOLD THE 12" PORTION OF THE BLANKET OVER COMPACTED AREA AND SECURE WITH A ROW OF STAPLES/STAKES PLACED 12" APART ACROSS THE WIDTH OF THE BLANKET.
9. UNROLL THE BLANKETS DOWN OR HORIZONTALLY ACROSS THE SLOPE. OVERLAP BLANKET EDGES BY A MINIMUM OF 4" AND BLANKET ENDS BY A MINIMUM OF 12".
10. OVERLAPS SHOULD BE IN THE DIRECTION OF EXPECTED FLOW WITH THE UP-SLOPE BLANKET PLACED OVER THE DOWN-SLOPE BLANKET EDGE.
11. SECURE DOWN-SLOPE END OF BLANKET WITH STAPLES/STAKES AND TRENCH IN.

MAINTENANCE
- CHECK AFTER A RAIN EVENT TO ENSURE THE BLANKET IS STILL IN PLACE.
- KEEP ERODED SOIL, VEHICULAR AND PEDESTRIAN TRAFFIC, AND CONCENTRATED RUNOFF AWAY FROM THE BLANKETED AREA.
- EROSION CONTROL BLANKETS AND ANCHORS MAY INHIBIT MOWING.

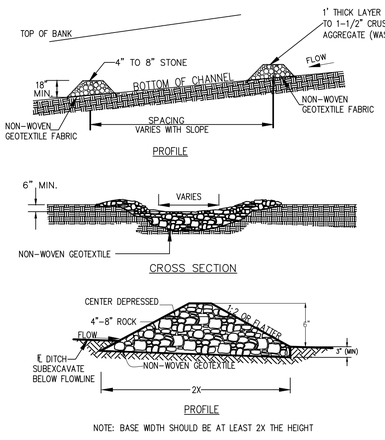
2 EROSION CONTROL BLANKET
NOT TO SCALE



INSTALLATION
1. A FILTER FABRIC BAG IS HUNG INSIDE THE INLET, BENEATH THE GRATE.
2. REPLACE GRATE, WHICH WILL HOLD BAG IN PLACE.
3. ANCHOR FILTER BAG WITH 1" REBAR FOR REMOVAL FROM INLET.
4. FLAPS OF BAG THAT EXTEND BEYOND THE BAG CAN BE BURIED IN SOIL IN EARTH AREAS.

MAINTENANCE
- DROP INLET FILTERS SHOULD BE INSPECTED ROUTINELY AND AFTER EACH MAJOR RAIN EVENT.
- DAMAGED FILTER BAGS SHOULD BE REPLACED.
- CLEAN AND/OR REPLACE FILTER BAG WHEN 1/2 FULL. REPLACE CLOGGED FABRIC IMMEDIATELY.
- IF NEEDED, INITIATE REPAIRS IMMEDIATELY UPON INSPECTION.
- REMOVE ENTIRE PROTECTIVE MECHANISM WHEN UPGRADIENT AREAS ARE STABILIZED AND STREETS HAVE BEEN SWEPT.
- CAN ONLY ACCOMMODATE SMALL FLOW QUANTITIES.
- REQUIRES FREQUENT MAINTENANCE.
- PONDING MAY OCCUR AROUND STORM DRAINS IF FILTER IS CLOGGED.

3 INLET PROTECTION – FABRIC DROP
NOT TO SCALE



NOTE: BASE WIDTH SHOULD BE AT LEAST 2X THE HEIGHT

INSTALLATION
1. THE CHECK DAM SHALL BE CONSTRUCTED OF ROCK ONLY.
2. THE ROCK SHALL BE PLACED ON NON-WOVEN GEOTEXTILE FABRIC.
3. REMOVE WOODY VEGETATION PRIOR TO PLACING NON-WOVEN GEOTEXTILE FABRIC.
4. NON-WOVEN GEOTEXTILE FABRIC SHALL BE INSET A MINIMUM OF 3" BELOW ADJACENT GRADES.
5. THE CHECK DAM SHALL BE CONSTRUCTED OF 4"-8" STONE. THE STONE SHALL BE PLACED TO COMPLETELY COVER THE WIDTH OF THE FLOW CORRIDOR AND SHALL BE KEYED INTO ADJACENT BANKS.
6. THE MIDDLE OF THE CHECK DAM SHALL BE LOWER THAN THE OUTER EDGES, SUCH THAT NO FLOW GOES AROUND THE STRUCTURE.
7. THE UP-STREAM SIDE OF THE CHECK DAM CAN BE LINED WITH SMALLER CRUSHED AGGREGATE TO IMPROVE EFFICIENCY.
8. SLOPES OF CHECK DAM SHOULD BE 1:2 OR FLATTER.

MAINTENANCE
- CHECK DAMS SHOULD BE INSPECTED AFTER EACH RUNOFF EVENT.
- CLOGGED STONE SHOULD BE PERIODICALLY CLEANED.
- NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER INSPECTION.
- ACCUMULATED UPFLOW SEDIMENT SHOULD BE PERIODICALLY REMOVED.
- IF CHECK DAM IS INTENDED AS TEMPORARY STRUCTURE, REMOVE AFTER STABILIZATION IS ACHIEVED.
- USE ONLY IN SMALL OPEN CHANNELS WHICH DRAIN 10 ACRES OR LESS.
- NOT TO BE USED IN LIVE STREAMS.

4 DITCH CHECK DETAIL (TEMPORARY AND PERMANENT)
NTS

SWPPP NOTES:

1. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE SWPPP ON THE SITE FOR THE DURATION OF CONSTRUCTION.
2. THE CONTRACTOR SHALL ADHERE TO THE SWPPP DURING CONSTRUCTION OPERATIONS.
3. THE SWPPP INCLUDES SPECIFICATION SECTION 01150, THE SWPPP NARRATIVE AND ASSOCIATED APPENDICES, AND THE SWPPP DRAWINGS AND ASSOCIATED DETAIL SHEETS.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN AND REPAIR ALL BMPS DURING CONSTRUCTION.
5. ALL EARTH-DISTURBING CONSTRUCTION ACTIVITIES SHALL BE PERFORMED WITHIN THE LIMITS OF DISTURBANCE AS INDICATED ON THE SWPPP DRAWINGS.
6. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE LIMITS OF DISTURBANCE SHOWN ON THE DRAWINGS AND FIELD-STAKING THE LIMIT OF DISTURBANCE LINE PRIOR TO THE START OF CONSTRUCTION.
7. PERIMETER EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO THE START OF ANY LAND CLEARING OR GRADING ACTIVITIES.
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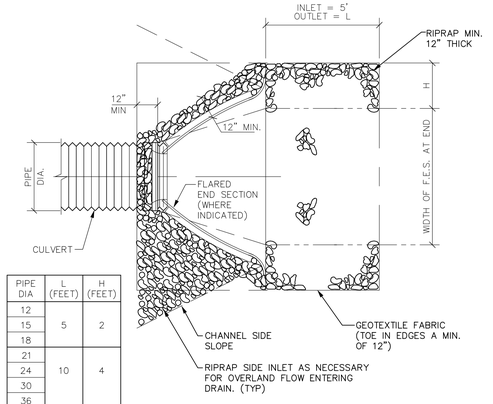
9. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY SEDIMENTATION RESULTING FROM WORK ON THIS SITE IS CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS.
10. SLOPES ARE TO BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
11. CONTRACTOR LAYDOWN, STAGING AND STOCKPILE AREAS ARE TO BE LOCATED WITHIN THE PERMITTED LIMITS OF DISTURBANCE.
12. SILT FENCE IS TO BE INSTALLED AROUND THE PERIMETER OF ON-SITE SOIL STOCKPILE AREAS AS DICTATED BY SITE CONDITIONS. ADDITIONALLY, INACTIVE PORTIONS OF THE STOCKPILE AREAS ARE TO BE STABILIZED AS REQUIRED HEREIN.
13. IMPLEMENT TEMPORARY STABILIZATION MEASURES ON ANY DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES WILL NOT RESUME FOR 14 DAYS OR MORE. IMPLEMENTATION OF TEMPORARY STABILIZATION MEASURES MUST BE INITIATED IMMEDIATELY AND COMPLETED WITHIN SEVEN (7) DAYS FROM WHEN CONSTRUCTION ACTIVITIES TEMPORARILY CEASED ON ANY PORTION OF THE SITE.
14. EXPOSED AREAS ARE TO BE SEEDED/STABILIZED AS SPECIFIED WITHIN SEVEN (7) DAYS FOLLOWING THE CONCLUSION OF FINAL GRADING IN THAT AREA.
15. THE CONTRACTOR IS RESPONSIBLE FOR REGULARLY CHECKING SEEDED AREAS TO SEE THAT A GOOD STAND OF VEGETATION IS ESTABLISHED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED. THE CONTRACTOR IS RESPONSIBLE TO ENSURE VEGETATION IS ESTABLISHED FOR A WARRANTY PERIOD OF TWO FULL GROWING SEASONS.
16. TRACKING OF SOIL AND SEDIMENT ONTO OFF-SITE ROADWAYS SHALL BE MINIMIZED THROUGH THE USE OF APPROPRIATE MEASURES. THE CONTRACTOR SHALL IMMEDIATELY REMOVE ANY SOIL OR SEDIMENT TRACKED ONTO THE ROADWAYS.
17. THE CONTRACTOR SHALL BRING TO THE SITE AND USE ONLY EQUIPMENT THAT IS WELL-MAINTAINED AND WITHOUT LEAKS.
18. NO VEHICLES AND EQUIPMENT CLEANING IS ALLOWED AT LOCATIONS WHERE RUNOFF SHALL FLOW DIRECTLY INTO A WATER COURSE.
19. EMPTY CANISTERS, CANS, OR OTHER CHEMICAL CONTAINERS (I.E.FROM HYDRAULIC FLUIDS, ETC.) AND ALL OTHER WASTE MATERIALS ARE TO BE KEPT IN APPROPRIATE SEALED WASTE CONTAINERS AND UNTIL THEY CAN BE REMOVED FROM THE SITE FOR PROPER OFF-SITE DISPOSAL.



PIPE DIA	L (FEET)	H (FEET)
12	5	2
15		
18		
21	10	4
24		
30		
36		
42	15	6
48		
54		
60		
66	20	8
72		
78		
84		

NOTE:
"H" PROVIDES FOR RIPRAP UP TO THE MIDPOINT OF THE AVERAGE PIPE DIAMETER IN THE GROUPING.

"L" FOLLOWS MINIMUM APRON LENGTHS BASED ON EMPIRICAL FORMULA U.S.E.P.A. 1976 L=3Q/D3/2 FOR TAILWATERS GREATER THAN 0.5D (D=DIAMETER).

6 RIPRAP END TREATMENT DETAIL
NTS

Know what's below. Call before you dig.

Foth SMITHGROUP UPEA ENGINEERS & ARCHITECTS

BID DRAWINGS
MARINA RECONSTRUCTION, CONTRACT 4
SAXON HARBOR RECONSTRUCTION
FEMA DISASTER #4276
IRON COUNTY FORESTRY
AND PARKS DEPARTMENT
HURLEY, WISCONSIN
IRON COUNTY WISCONSIN

NO.	BY	DATE	REVISIONS DESCRIPTION
1	UPEA	12/19	BIDDING

NOT FOR CONSTRUCTION

RECORD DRAWING OF COMPLETED CONSTRUCTION BY:
RECORD DRAWINGS OF COMPLETED CONSTRUCTION AND CONFORMING TO CONTRACTOR AND/OR OWNERS RECORDS
BY _____ DATE _____

DATE OF PREPARATION

	BY	DATE
SURVEYED		
DRAWN		L.G.H.
DESIGNED		
CHECKED		

PROPOSED CAMPGROUND AREA - SESC DETAILS

NOT TO SCALE

PROJECT ID: 17I007.00

C704

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PANEL C-1 (CAMPGROUND MAIN PANEL #1)

Locate on wall of Bath/Shower Building — **C1**

Voltage: 240/120
Amperage: 600
Phase: 1
Wire: 3
Main: 600A Main Circuit Breaker

Mounting: Surface - Exterior (NEMA 3R)
Manufacturer: Square-D
Model: I-Line

Feeder: 2 Sets of 500CM AL, 600A (service wires from meter)
Project: F94-17315 Saxon Harbor

Brkr No	Load Description	Wire	Brkr Size	Brkr Poles	Ckt Load	Phase		Ckt Load	Brkr Poles	Brkr Size	Wire	Load Description	Brkr No
1	FEEDER "A" Campsites 24 & 25 Power Pedestals (50/30/20)	#4/0	100	2	10,800	A		10,800	2	100	#4/0	FEEDER "G" Campsites 21 & 22 Power Pedestals (50/30/20)	2
3					10,800		B	10,800					4
5	FEEDER "B" Campsites 15 & 17 Power Pedestals (50/30/20)	#4/0	100	2	10,800	A		10,800	2	100	#4/0	FEEDER "H" Campsites 23 & 28 Power Pedestals (50/30/20)	6
7					10,800		B	10,800					8
9	FEEDER "C" Campsites 19 & 1 Power Pedestals (50/30/20)	#4/0	100	2	10,800	A			2	100	-	SPARE	10
11					10,800		B						12
13	FEEDER "D" Campsites 13 & 12 Power Pedestals (50/30/20)	#4/0	100	2	10,800	A							14
15					10,800		B						16
17	FEEDER "E" Campsites 10 & 8 Power Pedestals (50/30/20)	#4/0	100	2	10,800	A			1	20	-	SPARE	18
19					10,800		B		1	20	-	SPARE	20
21	FEEDER "F" Campsites 14 & 11 Power Pedestals (50/30/20)	#4/0	100	2	10,800	A		6,000	2	50	#1 AL	FEEDER "O" Campsite #6 Power Pedestal (50/30/20)	22
23					10,800		B	6,000					24
25						A		3,500	2	100	#4/0	Feeder to Water Storage Building	26
27							B	3,500					28
29						A							30
			95,900			A-Phase Load		799.2					
			95,900			B-Phase Load		799.2 Amps	Connected Load				
	NOTE: ALL FEEDER SIZES BASED ON ALUMINUM WIRE		191800			Total VA		428.7 Amps	Demand Load (on panel) at 47% demand factor per NEC Table 551.73(A)				

PANEL C-2 (CAMPGROUND MAIN PANEL #2)

Locate on wall of Bath/Shower Building — **C2**

Voltage: 240/120
Amperage: 600
Phase: 1
Wire: 3
Main: 600A Main Circuit Breaker

Mounting: Surface - Exterior (NEMA 3R)
Manufacturer: Square-D
Model: I-Line

Feeder: 2 Sets of 350CM CU, 600A (service wires from meter)
Project: F94-17315 Saxon Harbor

Brkr No	Load Description	Wire	Brkr Size	Brkr Poles	Ckt Load	Phase		Ckt Load	Brkr Poles	Brkr Size	Wire	Load Description	Brkr No
1	Women's Toilet/Shower Elec. Hand Dryer	#12	20	1	1920	A		2400	2	30	#10	Men's Toilet/Shower Electric Heater	2
3	Women's Toilet/Shower Elec. Hand Dryer	#12	20	1	1920		B	2400					4
5	Family Toilet/Shower Elec. Hand Dryer	#12	20	1	1920	A		2400	2	30	#10	Women's Toilet/Shower Electric Heater	6
7	FEEDER "K" Campsites 16 & 18 Power Pedestals (50/30/20)	#4/0	100	2	10,800		B	2400					8
9					10,800	A		10,800	2	100	#4/0	FEEDER "L" Campsites 2 & 3 Power Pedestals (50/30/20)	10
11	Men's Toilet/Shower Elec. Hand Dryer	#12	20	1	1920		B	10,800					12
13	Men's Toilet/Shower Elec. Hand Dryer	#12	20	1	1920	A		10,800	2	100	#4/0	FEEDER "M" Campsites 4 & 5 Power Pedestals (50/30/20)	14
15	Family Toilet/Shower Elec. Wall Heater	#10	30	2	2400		B	10,800					16
17					2400	A			1	20	#12	Women's Toilet/Shower Recept, EF & Lights	18
19	FEEDER "J" Campsites 6 & 9 Power Pedestals (50/30/20)	#4/0	100	2	10,800		B		1	20	#12	Men's Toilet/Shower Recept, EF & Lights	20
21					10,800	A			1	20	#12	Family Toilet/Shower Recept, EF & Lights	22
23	FEEDER "I" Campsites 26 & 27 Power Pedestals (50/30/20)	#4/0	100	2	10,800		B	6,000	2	50	#1 AL	FEEDER "N" Campsite #20 Power Pedestal (50/30/20)	24
25					10,800	A		6,000					26
27	Mechanical Elec. Wall Heater	#10	30	2	2400		B	200	1	20	#12	Mechanical Recpt/Lights	28
29					2400	A		300	1	20	#12	Exterior Lights, WP Receptacles	30
31	30kW Electric Water Heater	#2/0	175	2	15,000		B						32
33					15,000	A							34
			90660			A-Phase Load		755.5					
	NOTE: FEEDER CONDUCTOR SIZES (100-AMP & LARGER) BASED ON ALUMINUM WIRE UNLESS NOTED OTHERWISE		88640			B-Phase Load		738.7 Amps	Connected Load				
			179300			Total VA		480.5 Amps	Demand Load with 50% Demand Factor for Pedestals (NEC Table 551.73(A))				

CAMPGROUND TOILET/SHOWER/RESTROOM ELECTRICAL PANEL SCHEDULES

4

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LIGHT FIXTURE SCHEDULE - UPEA # F94-17315 - SAXON HARBOR - CAMPGROUND BUILDING (BID PACKAGE #4)

TYPE	DESCRIPTION	MANUFACTURER (OR EQUAL)	CATALOG NUMBER	LED LUMENS	DRIVER WATTS	NOTES
A	4' LENSED SURFACE ROUGH SERVICE	FAIL-SAFE	FPS-4 LD4 2 STD 40 OPL UNV EDC1 ABP	4,189	68.3	
B	EXTERIOR LED WALL MOUNT	LITHONIA	OLWP P1 40K 120 PE BZ	1,414	22.8	2,4
C	4' LED LENSED CHANNEL	METALUX	4SNLED-LD5-41SL-LW-UNV-L840-CD1U	3,555	39	
LP	PARKING LOT LIGHT - POLE MOUNTED LED FIXTURE ON WOOD POLE	AEL	LNL2PKG-LU3-MVOLT-R5-BA	2,828	37	3,4
EA	EMERGENCY LIGHT	SURE-LITES	AP2SQ			1
XA	COMBINATION EXIT/EMERGENCY	LITHONIA	LQM S W 3R 120/277 EL N M6			1
		SURE-LITES	LPX7DHNC			

Notes:
1. CONNECT TO UNSWITCHED HOT OF IDENTIFIED LIGHTING CIRCUIT
2. EXTERIOR WALL MOUNT, SEE ARCHITECTURAL PLANS.
3. PROVIDE 30' UTILITY CLASS WOOD POLE, MOUNT LIGHT AT 23' ABOVE GRADE. SET 6' DEEP IN COMPACTED SOIL. SLEEVE WIRE IN EMT.
4. PHOTOCELL CONTROL.

LIGHT FIXTURE SCHEDULE

3

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	SERVICE TOTAL [F94-17315]	Saxon Harbor - Campground Square Footage: 819		
factor	*Description*	Quantity	VA Ungrnd	VA Neutral
2	watts/sq-ft (Misc. Bldg. Lighting)	819	1,638	1,638
	parking/exterior lighting	6	330	330
180	va/sq-ft (Misc. Bldg. recept. load)	10	1,800	1,800
	Gen. Light Circuit Amps @ 120V	14		
	+12A = # 15A circuits required:	2		
	+16A = # 20A circuits required:	1		
	Total General Lighting Load		3,768	3,768
	Net General Lighting Load		**3,768**	**3,768**
	Equipment			
	Electric Hand Dryers	5	12,000	12,000
	Electric Commercial Water Heate	1	30,000	10,500
	Campground Power Peds (50/30)	28	336,000	117,600
	Equip Sub-Total		378,000	140,100
	Mechanical & Other Loads			
	Electric Wall Heaters	4	20,000	20,000
	Exhaust Fans	3	1080	1080
	Campground Demand Reduction:	58%	-194,880	-68,208
	25% of Largest Motor(430-24)	1	1,200	1,200
	Total Connected Volt-Amperes		**209,168**	**97,940**
	Amperes @ 240 Volts single-phase		**872**	**408**
	Next Standard Size:		**1000**	400
	Actual Service Size:		**1200**	**500**
	Copper Wire Size:		**4-350MCM**	**2-250MCM**

ELECTRICAL LOAD CALCULATION

2

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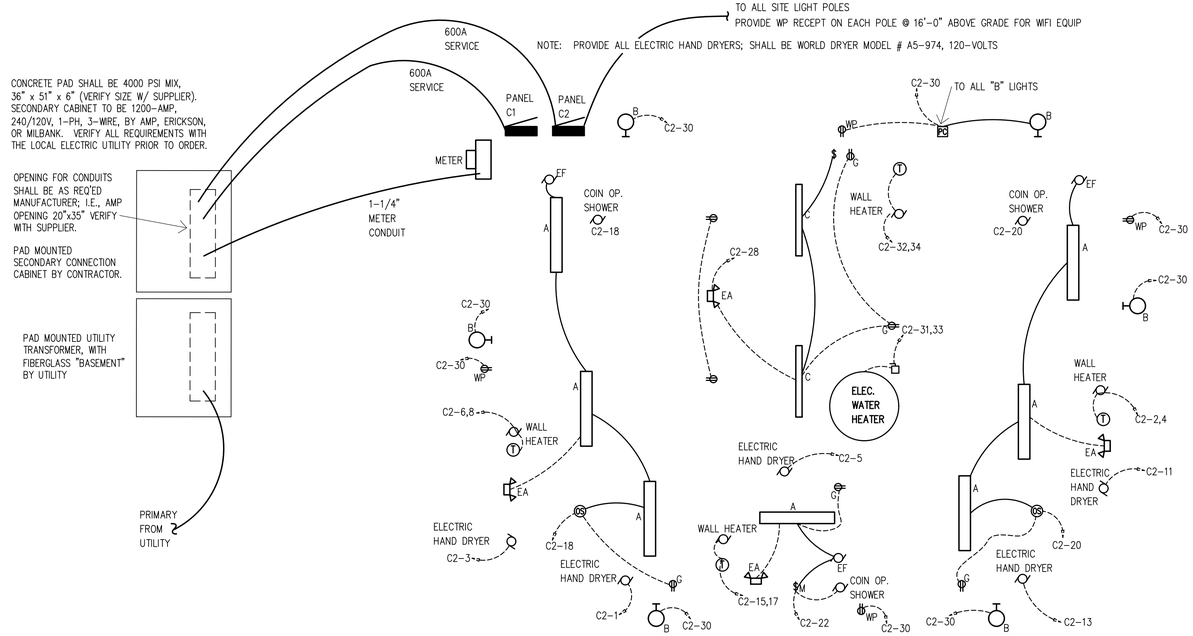

CAMPGROUND RESTROOM ELECTRICAL PLAN

1

1" = 1'-0" SCALE

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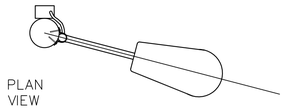

5 LIGHT POLE "LP" DETAIL

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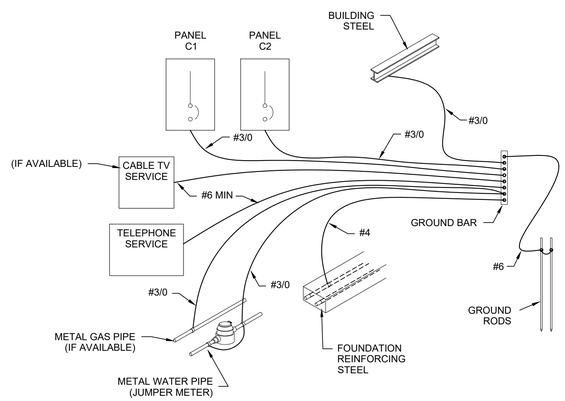
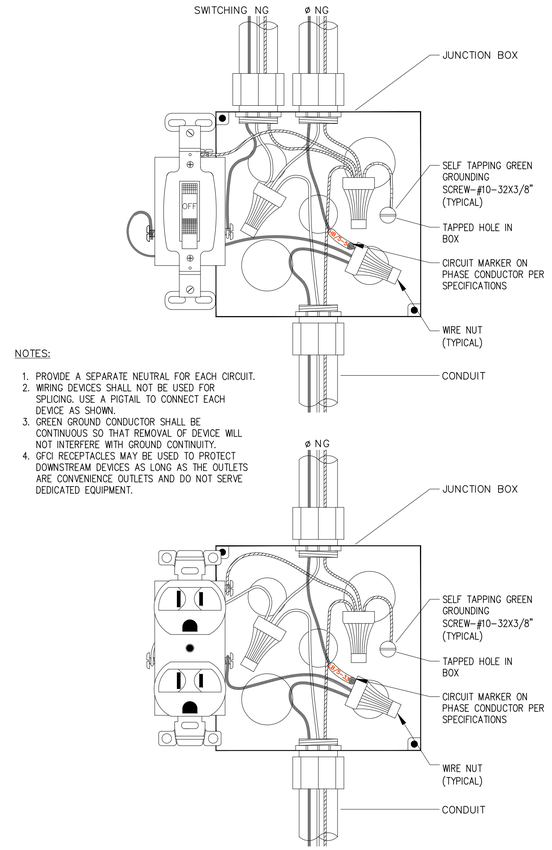


1 GROUNDING / BONDING DIAGRAM

NO SCALE



NOTES:

1. PROVIDE A SEPARATE NEUTRAL FOR EACH CIRCUIT.
2. WIRING DEVICES SHALL NOT BE USED FOR SPLICING. USE A PIGTAIL TO CONNECT EACH DEVICE AS SHOWN.
3. GREEN GROUND CONDUCTOR SHALL BE CONTINUOUS SO THAT REMOVAL OF DEVICE WILL NOT INTERFERE WITH GROUND CONTINUITY.
4. GFCI RECEPTACLES MAY BE USED TO PROTECT DOWNSTREAM DEVICES AS LONG AS THE OUTLETS ARE CONVENIENCE OUTLETS AND DO NOT SERVE DEDICATED EQUIPMENT.

3 TYPICAL SWITCH/RECEPTACLE WIRING DETAIL

NO SCALE

Foth
UPEA ENGINEERS & ARCHITECTS
SMITHGROUP

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ABBREVIATIONS

ACCU	AIR COOLED CONDENSING UNIT
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
AO	ANALOG OUTPUT
APD	AIR PRESSURE DROP
B	BOILER
BB	BASEBOARD
BC	BOOSTER COIL
BDD	BACKDRAFT DAMPER
BFG	BELOW FINISHED GRADE
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSE POWER
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BTU	BRITISH THERMAL UNITS
BTUH	BRITISH THERMAL UNITS PER HOUR
C	CONVECTOR
CA	COMPRESSED AIR
CC	COOLING COIL
CCF	100 CUBIC FEET
CD	CEILING DIFFUSER
CF	CUBIC FEET
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CFP	CLEAN OUT FERRULE AND PLUG
CH	CHILLER
CI	CAST IRON
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CO	CLEAN OUT
CO	CARBON MONOXIDE
COND	CONDENSATE
CO2	CARBON DIOXIDE
CU	CONDENSING UNIT
CU FT	CUBIC FOOT
CUH	CABINET UNIT HEATER
CW	COLD WATER
D	DIFFUSER
DB	DRY BULB
DEG F	DEGREE FAHRENHEIT
DF	DRINKING FOUNTAIN
DH	DUCT HEATER
DI	DIGITAL INPUT
DIA	DIAMETER
DN	DOWN
DO	DIGITAL OUTPUT
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
EG	EXHAUST AIR GRILLE
ELEV	ELEVATION
ER	EXHAUST AIR REGISTER
ES	EMERGENCY SHOWER
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EWT	ENTERING WATER TEMPERATURE
EX	EXISTING
EXH	EXHAUST
F	FIRE DAMPER
FBO	FURNISHED BY OTHERS
FC	FAN COIL
FD	FLOOR DRAIN
FD	FIRE DAMPER
FIN	FIN TUBE RADIATION
FLG	FLANGE
FP	FIRE PROTECTION
FPM	FEET PER MINUTE
FSC	FOOD SERVICE CONTRACTOR
FT	FOOT OR FEET
FUR	FURNACE
F&T	FLOAT AND THERMOSTATIC TRAP
G	GAS (NATURAL)
GAL	GALLON
GC	GENERAL CONTRACTOR
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GRV	GRAVITY ROOF VENTILATOR
GWH	GAS WATER HEATER
H	HYDROGEN
HB	HOSE BIBB
HC	HEATING COIL
HCO	HORIZONTAL CLEANOUT
HP	HORSE POWER
HTR	HEATER
HVAC	HEATING, VENTILATING & AIR CONDITIONING
HW	HOT WATER
HWC	DOMESTIC HOT WATER RECIRCULATING
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HX	HEAT EXCHANGER
IE	INVERT ELEVATION
IF	INLINE FAN
IN	INCH OR INCHES
INSUL	INSULATION
INV	INVERT
IWH	INSTANTANEOUS WATER HEATER

JAN	JANITOR
JC	JANITOR'S CLOSET
LAT	LEAVING AIR TEMPERATURE
LAV	LAVATORY
LBS	POUNDS
LHWR	LOW TEMPERATURE HOT WATER RETURN
LHWS	LOW TEMPERATURE HOT WATER SUPPLY
LIQ	LIQUID (REFRIGERATION)
LP	LIQUEFIED PETROLEUM GAS (LIQUID)
LWT	LEAVING WATER TEMPERATURE
M	METER
MAU	MAKE-UP AIR HANDLING UNIT
MAX	MAXIMUM
MB	MOP BASIN
MBH	BRITISH THERMAL UNITS (1000)
MBTUH	BRITISH THERMAL UNITS (1000)
MC	MECHANICAL CONTRACTOR
MCA	MINIMUM CIRCUIT AMPACITY
MD	MOTORIZED DAMPER
MECH	MECHANICAL
MIN	MINIMUM
MOCP	MAXIMUM OVER CURRENT PROTECTION
N2O	NITROUS OXIDE
NC	NORMALLY CLOSED
NIC	NOT INCLUDED OR NOT IN CONTRACT
NIT	NITROGEN
NO	NORMALLY OPEN
OA	OUTDOOR AIR
OAI	OUTDOOR AIR INTAKE
OC	ON CENTER
OD	OVERFLOW DRAIN
ODP	OPEN DRIP PROOF
OD	OVERFLOW ROOF DRAIN
OXY	OXYGEN
P	PUMP
PC	PLUMBING CONTRACTOR
PIV	POST INDICATING VALVE
PRV	PRESSURE REDUCING VALVE
PT	PRESSURE TEMPERATURE PLUG
PTAC	PACKAGED TERMINAL AIR CONDITIONING UNIT
PVAC	PROCESS VACUUM
R	REGISTER
RA	RETURN AIR
RD	ROOF DRAIN
RET	RETURN
RF	RETURN FAN
RG	RETURN AIR GRILLE
RHC	REHEAT COIL
RPZ	REDUCED PRESSURE ZONE BACKFLOW PREVENTER
RR	RETURN REGISTER
RTU	ROOF TOP UNIT
S	SINK
SA	SUPPLY AIR
SAD	SUPPLY AIR DIFFUSER
SAF	SUPPLY AIR FAN
SAN	SANITARY SEWER
SD	SMOKE DETECTOR
SG	SUPPLY AIR GRILLE
SH	SHOWER HEAD
SHC	STEAM HEATING COIL
SR	SUPPLY REGISTER
SS	STAINLESS STEEL
ST	STORM
STM	STEAM
SUCT	SUCTION (REFRIGERATION)
SW	SOFT WATER
TCC	TEMPERATURE CONTROL CONTRACTOR
TFA	TO FLOOR ABOVE
TFB	TO FLOOR BELOW
TG	TRANSFER AIR GRILLE
TV	TURNING VANES
TYP	TYPICAL
UG	UNDERGROUND
UH	UNIT HEATER
UV	UNIT VENTILATOR
V	VENT
VAC	VACUUM
VAV	VARIABLE AIR VOLUME BOX
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
VS	VENT STACK (SANITARY)
VTR	VENT THRU ROOF (SANITARY)
VUV	VERTICAL UNIT VENTILATOR
W	WASTE
WB	WET BULB
WC	WATER CLOSET
W/O	WITHOUT
WH	WATER HEATER

NOTE:
NOT ALL ABBREVIATIONS AND/OR SYMBOLS ARE USED IN THIS SET OF DOCUMENTS.

SYMBOL LEGEND

- SUPPLY AIR DIFFUSER
- LINEAR DIFFUSER
- RETURN OR EXHAUST AIR GRILLE
- EXHAUST FAN – ROOF
- FRESH AIR INTAKE HOOD – ROOF
- RELIEF AIR HOOD – ROOF
- SUPPLY REGISTER
- RETURN OR EXHAUST REGISTER
- SQUARE TO ROUND TRANSITION
- VOLUME CONTROL DAMPER
- FIRE DAMPER OR COMBINATION FIRE/SMOKE DAMPER (RATING DETERMINED BY WALL TYPE – SEE ARCH)
- MOTORIZED DAMPER
- DUCT SMOKE DETECTOR
- THERMOSTAT – 48" A.F.F.
- AIR FLOW
- SUPPLY AIR DUCT UP
- SUPPLY AIR DUCT DOWN
- RETURN AIR DUCT UP
- RETURN AIR DUCT DOWN
- EXHAUST AIR DUCT UP
- EXHAUST AIR DUCT DOWN
- BALL VALVE
- BUTTERFLY VALVE
- CIRCUIT SETTER
- CHECK VALVE
- GATE VALVE
- PRESSURE RELIEF VALVE
- BALANCE VALVE
- INLINE PUMP
- STRAINER
- CAP
- PIPING 90
- PIPING "T"
- HUMIDIFIER
- METER
- CONNECTION TO EXISTING
- PIPE BREAK
- PIPE DOWN
- PIPE
- UP
- CLEAN OUT
- GAS METER
- UNION
- HOSE BIBB
- BARE FIN TUBE ELEMENT
- FIN TUBE ELEMENT WITH COVER

DUCTWORK

- 24x14 SA – SUPPLY AIR DUCT
- 24x14 RA – RETURN AIR DUCT
- 24x14 OA – OUTSIDE AIR DUCT
- 24x14 EA – EXHAUST AIR DUCT

MECHANICAL PIPING

- HWS – HYDRONIC HOT WATER SUPPLY – EXISTING
- HWS – HYDRONIC HOT WATER SUPPLY – DEMO
- HWS – HYDRONIC HOT WATER SUPPLY – NEW
- HWR – HYDRONIC HOT WATER SUPPLY – EXISTING
- HWR – HYDRONIC HOT WATER SUPPLY – DEMO
- HWR – HYDRONIC HOT WATER SUPPLY – NEW
- FP – FIRE PROTECTION – EXISTING
- FP – FIRE PROTECTION – DEMO
- FP – FIRE PROTECTION – NEW

PLUMBING PIPING

- CW – DOMESTIC COLD WATER – EXISTING
- CW – DOMESTIC COLD WATER – DEMO
- CW – DOMESTIC COLD WATER – NEW
- HW – DOMESTIC HOT WATER – EXISTING
- HW – DOMESTIC HOT WATER – DEMO
- HW – DOMESTIC HOT WATER – NEW
- HWC – DOMESTIC HOT WATER RECIRC – EXISTING
- HWC – DOMESTIC HOT WATER RECIRC DEMO
- HWC – DOMESTIC HOT WATER RECIRC – NEW
- SAN – SANITARY – EXISTING
- SAN – SANITARY – DEMO
- SAN – SANITARY – NEW
- V – VENT – EXISTING
- V – VENT – DEMO
- V – VENT – NEW
- ST – STORM – EXISTING
- ST – STORM – DEMO
- ST – STORM – NEW
- G – GAS – EXISTING
- G – GAS – DEMO
- G – GAS – NEW

NOTES

MECHANICAL/PLUMBING AND FIRE PROTECTION GENERAL NOTES

1. THE CONTRACTOR TO PROVIDE ALL EQUIPMENT, MATERIALS AND OPERATIONS AND PERFORM ALL LABOR REQUIRED FOR INSTALLATIONS AS INDICATED THE DRAWINGS, IN THE SPECIFICATIONS AND AS REQUIRED BY LOCAL, STATE AND FEDERAL CODES, AND AS MAY BE REASONABLY IMPLIED TO ACCOMPLISH COMPLETE MECHANICAL SYSTEMS.
2. ALL CLOSE ELECTRICAL DISCONNECTS REQUIRED PER NEC CODE SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE.
3. CONTRACTOR TO PROVIDE PRODUCTS AS SPECIFIED ON THE DRAWINGS AND SPECIFICATIONS, HOWEVER, WHERE THE WORDS "EQUAL TO" ARE USED, ADDITIONAL PRODUCTS MAY BE SUBMITTED AS PROPOSED SUBSTITUTIONS, BUT REQUIRE APPROVAL FROM ARCHITECT/ENGINEER.
4. DESIGN DRAWINGS SHOW GENERAL ARRANGEMENT AND EXTENT OF WORK. THE DRAWINGS ARE DIAGRAMMATIC AND MAY NOT NECESSARILY BE DRAWN TO SCALE FOR PURPOSE OF CLARITY AND LEGIBILITY. IT IS INTENDED THAT ALL ITEMS BE LOCATED SYMMETRICALLY WITH ARCHITECTURAL ELEMENTS WHERE FEASIBLE AND BE INSTALLED TO AVOID OBSTRUCTIONS AND PRESERVE HEADROOM. CONTRACTOR TO REVIEW PLANS OF OTHER TRADES WITH HIS OWN WORK TO AVOID CONFLICTS AND INTERFERENCES. CONTRACTOR MUST MAKE USE OF ALL SOURCES OF INFORMATION INCLUDING DRAWINGS OF EQUIPMENT FURNISHED BY OTHERS. FAILURE TO REVIEW WORKING SPACES OR CHECK DIMENSIONS IN QUESTION SHALL NOT WARRANT CONFLICTS. DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE COMPLIMENTARY.
5. MOTORS TO BE PROVIDED BY MECHANICAL CONTRACTOR AS REQUIRED BY THE EQUIPMENT FURNISHED BY THE MECHANICAL CONTRACTOR. MOTORS TO BE SUITABLE FOR LOAD, DUTY, VOLTAGE, FREQUENCY, HAZARD, SERVICE AND LOCATION INTENDED. SINGLE PHASE MOTORS MUST HAVE INTEGRAL THERMAL OVERLOAD PROTECTION IN ADDITION TO THAT PROVIDED IN MOTOR CONTROLLERS. MOTORS TO CONFORM IN DESIGN AND PERFORMANCE TO THE MOTOR STANDARDS OF NEMA. MOTORS RATED FOR CONTINUOUS DUTY UNDER FULL LOAD WITH A MAXIMUM TEMPERATURE RISE OF 105 DEG F FOR OPEN, 125 DEG F FOR DRIP PROOF AND 130 DEG F FOR EXPLOSION PROOF AND TOTALLY ENCLOSED TYPES. SUPPLY MOTORS WITH BELT DRIVES WITH ADJUSTABLE BASES, REMOVABLE BELT GUARDS AND VARIABLE PITCH DRIVE PULLEY SELECTED SO THAT MIDPOINT OF VARIABLE RANGE OF PULLEY WILL DRIVE EQUIPMENT AT RATED SPEED. MOTORS 1 HP AND LARGER SHALL BE THREE PHASE (UNLESS OTHERWISE LISTED).
6. MOTOR CONTROLLERS SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR FOR MOTORS FURNISHED BY THE MECHANICAL CONTRACTOR. MOTOR CONTROLLERS SHALL BE OF SIZES AND TYPES AS NEEDED TO MEET THE OPERATIONAL CONDITIONS AS REQUIRED BY THE SEQUENCE OF OPERATION. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL THE POWER CIRCUIT, LOCAL DISCONNECT AND CONNECTION TO MOTOR TERMINALS. MECHANICAL CONTRACTOR TO MOUNT MOTOR CONTROLLERS AND CONTROL COMPONENTS AND WIRE AND MAKE ALL FINAL CONTROL CONNECTIONS BETWEEN DEVICES.
7. THE DRAWINGS INDICATE KNOWN UTILITY AND DRAINAGE LINES IN ACCORDANCE WITH THE INFORMATION FURNISHED TO THE ENGINEER. RESPONSIBILITY FOR LOCATING, UNCOVERING, DISPOSING OR MAINTAINING ALL EXISTING UTILITY LINES TO REST SOLELY WITH THE CONTRACTOR. VERIFY LOCATIONS AND DEPTHS OF SERVICE CONNECTION POINTS BEFORE PROCEEDING WITH CONSTRUCTION.
8. CONTRACTOR TO CHECK EXISTING PREMISES BEFORE SUBMISSION OF BIDS TO CHECK ALL CONDITIONS WHICH MAY EFFECT THE PERFORMANCE OF THE WORK INVOLVED. NO ALLOWANCES OR EXTRA PAYMENT WILL BE MADE DUE TO CONTRACTOR'S FAILURE TO EXAMINE SITE AND FULLY DISCERN WORKING CONDITIONS.
9. MECHANICAL CONTRACTOR SHALL RECEIVE, PROPERLY HOUSE, HANDLE HOIST AND DELIVER TO PROPER LOCATION EQUIPMENT AND OTHER MATERIALS REQUIRED FOR HIS CONTRACT.
10. THE CONTRACTOR TO OBTAIN PERMITS, ARRANGE FOR INSPECTIONS, AND PAY FEES AND EXPENSES IN CONNECTION THEREWITH AS A PART OF THE WORK REQUIRING SUCH PERMITS. EVERY EFFORT IS MADE TO DESCRIBE THE WORK REQUIREMENTS IN CONFORMITY WITH APPLICABLE CODES.
11. THE CONTRACTOR SHALL REVIEW ANY ALTERNATES OF OTHER TRADES, AND PRICE THEIR BID TO ACCOUNT FOR ITEMS AFFECTING HIS WORK.
12. PIPING PASSING THROUGH CORRIDORS, TUNNELS, CHASES, ETC. SHALL BE CONSIDERED FOR PROPER DRAINAGE. CONSULT WITH THE OTHER CONTRACTORS AND AVOID CONFLICT WITH LOCATION OF PIPING. ORDER OF PRIORITY FOR ALL PIPING AND CONDUITS TO BE INSTALLED SHALL BE AS FOLLOWS WITH THE HIGHEST PRIORITY LISTED FIRST.
    1. PLUMBING DRAIN LINES
    2. CONDENSATE LINES
    3. DUCTWORK
    4. FIRE PROTECTION
    5. HOT AND COLD WATER PIPING
    6. ELECTRICAL CONDUIT
13. ALL EXISTING MECHANCIAL SYSTEMS SHOWN ON PLAN ARE BASED ON INFORMATION PROVIDED TO ENGINEER AND/OR BASED ON SITE INVESTIGATION. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS WHERE CONNECTING TO EXISTING.
14. THE CONTRACTOR SHALL NOT ASSUME THAT ANY DRAWING OR SPECIFICATION FORMING A PART OF THE CONTRACT DOCUMENTS AUTHORIZES THE VIOLATION OF ANY CODE, REGULATION OR STANDARD.

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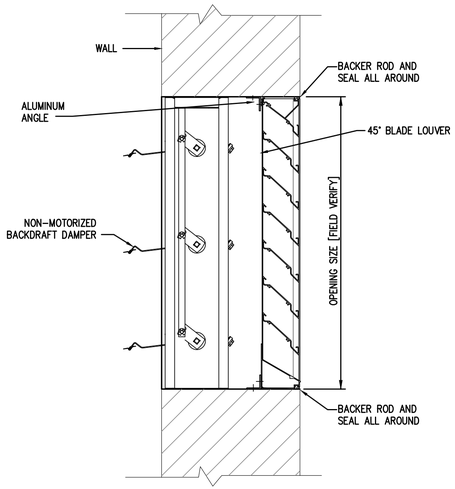

1 WALL LOUVER DETAIL

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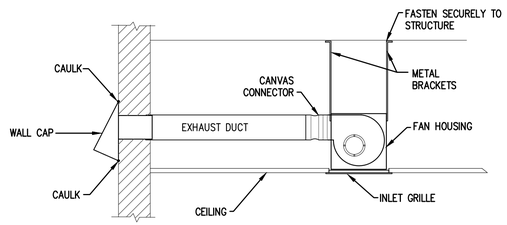

2 CEILING EXHAUST FAN DETAIL

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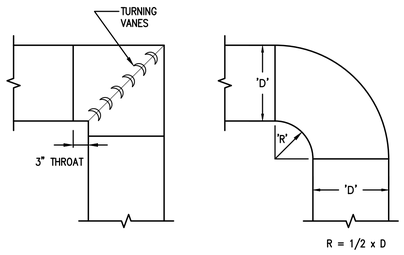

3 ACCEPTABLE DUCT TURNS

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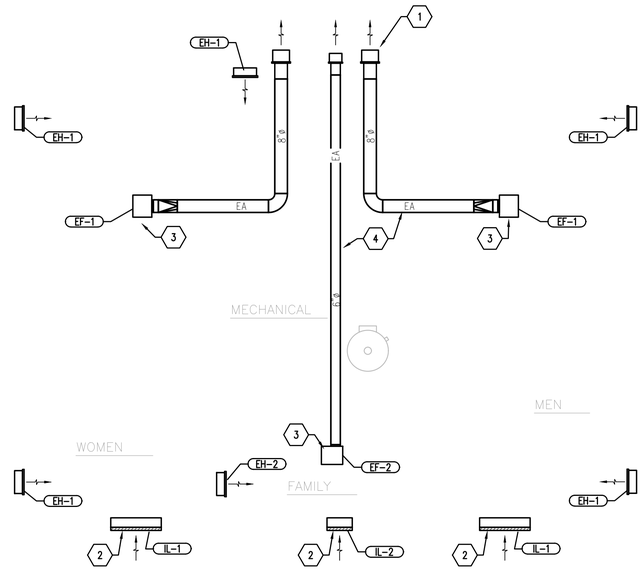

1 CAMPGROUND RESTROOM MECHANICAL

1/4" = 1'-0"

PLAN NORTH

ELECTRIC WALL HEATER SCHEDULE

MARK	MANUF	MODEL	BTU	ELECTRICAL			DIMENSIONS	WEIGHT	AIR THROW	NOTES
				VOLTS/PH	KW	AMPS	(WxH)	(LBS)	(CFM)	
EH-1	BERKO	FRC4824F	16380	240	4.8	20	14.5x18.8	25	100	1,2
EH-2	BERKO	FRC4827F	12285	240	3.6	15	14.5x18.8	25	100	1,2

NOTES:
A. EQUIPMENT TO BE FULLY RECESSED. COORDINATE WITH OTHER TRADES.
B. PROVIDE WITH INTERNAL TAMPER-PROOF THERMOSTAT AND 14 GAUGE SECURITY FRONT COVER.

EXHAUST FAN SCHEDULE

ID	DESCRIPTION	MANUFACTURER	MODEL NUMBER	AIRLFLOW (CFM)	RPM	EXTERNAL STATIC PRESSURE (IN)	WEIGHT (LBS)	DUCT SIZE (IN)	ELECTRICAL			NOTES
									VOLTS	PHASE	WATTS	
EF-1	EXHAUST FAN	GREENHECK	CSP-A290	275	1050	0.25	24	8"x8"	120	1	94	1,2,3,4
EF-2	EXHAUST FAN	GREENHECK	CSP-B150	125	1050	0.25	11	6"Ø	120	1	140	1,2,3,4

NOTES:
1. PROVIDE WITH BACK DRAFT DAMPER AND WALL CAP. COLOR TO BE SELECTED BY OWNER.
2. INTERLOCK FAN WITH LOCAL LIGHTING CIRCUIT. PROVIDE ALL REQUIRED CONTROL COMPONENTS.
3. FASTEN SECURELY TO STRUCTURE PER MANUFACTURER'S RECCOMENDATIONS.
4. COORDINATE LOCATION WITH OTHER EQUIPMENT AND PIPING.

LOUVER SCHEDULE

MARK	MANUF.	MODEL	SIZE	CFM	PRESSURE DROP (IN WG)	FREE AREA (FT^2)	VELOCITY (FT/SEC)	THICKNESS	MATERIAL	TYPE	REMARKS
IL-1	GREENHECK	SES-202	32"Wx16"H	275	0.06	0.74	403	2"	ALUM	INTAKE	SIGHTPROOF
IL-2	GREENHECK	SES-202	16"Wx16"H	125	0.06	0.34	404	2"	ALUM	INTAKE	SIGHTPROOF

NOTES:
1. PROVIDE WITH BACKDRAFT DAMPER, AND INSECT SREEN.
2. COORDINATE LOCATION WITH OTHER EQUIPMENT AND PIPING.

1. IF DIMENSIONS ARE IN QUESTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE OWNER BEFORE PROCEEDING WITH WORK.
2. FIELD VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE PROCEEDING.

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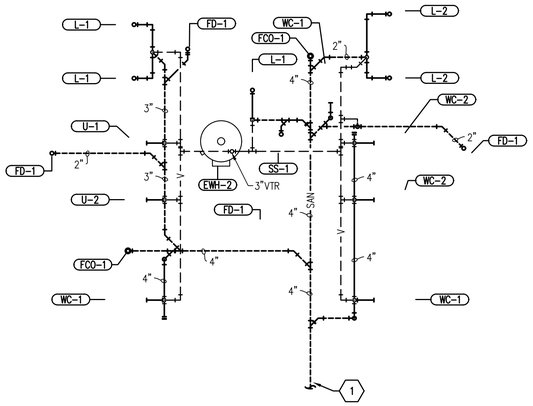
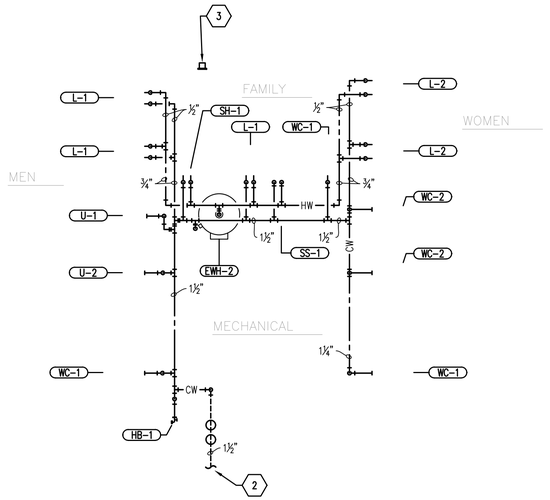


1 MARINA RESTROOM DWV PLAN

1/4" = 1'-0"

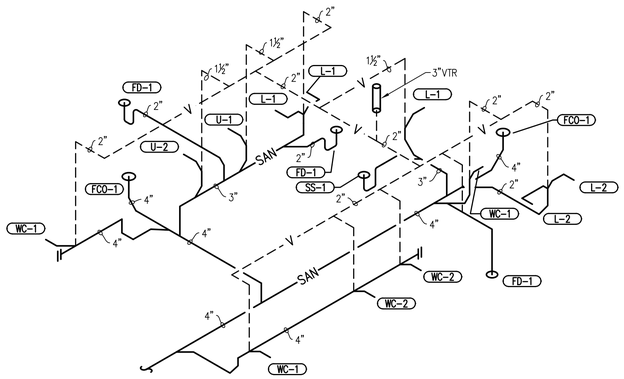
PLAN NORTH



2 MARINA RESTROOM DOMESTIC WATER PLAN

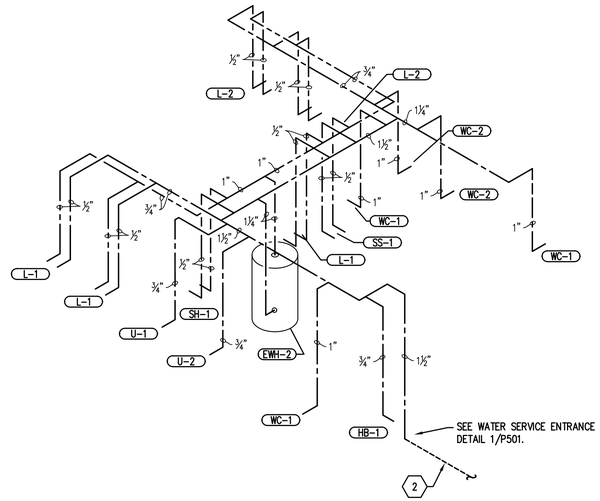
1/4" = 1'-0"

PLAN NORTH



3 DWV ISOMETRIC

1/4" = 1'-0"



4 DOMESTIC WATER ISOMETRIC

1/4" = 1'-0"

GENERAL NOTES

1. IF DIMENSIONS ARE IN QUESTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE OWNER BEFORE PROCEEDING WITH WORK.
2. FIELD VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE PROCEEDING.
3. ALL DOMESTIC WATER PIPING SHALL BE ARRANGED TO PROVIDE DRAINAGE OF ENTIRE SYSTEM. PROVIDE DRAIN VALVES AND CAPS AT ALL LOW POINTS THROUGHOUT SYSTEM.
4. PROVIDE ACCESS PANELS FOR ALL INACCESSIBLE VALVES.

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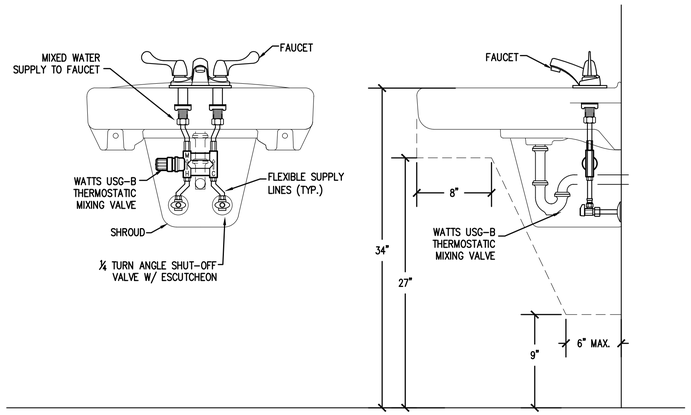
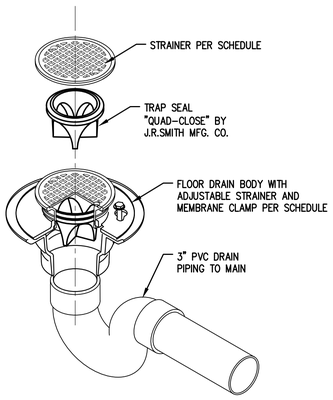


7 MIXING VALVE DETAIL

NO SCALE



4 FLOOR DRAIN DETAIL

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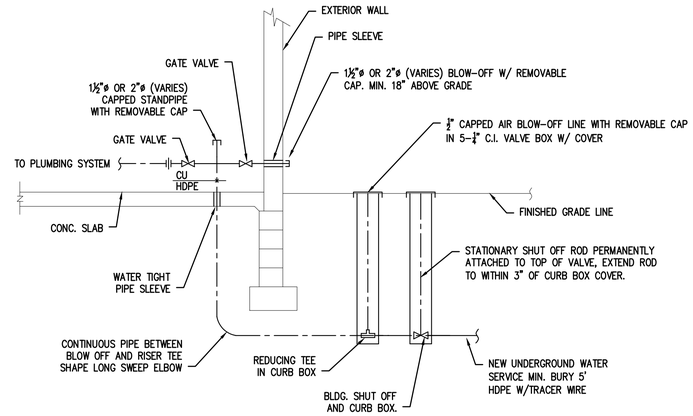
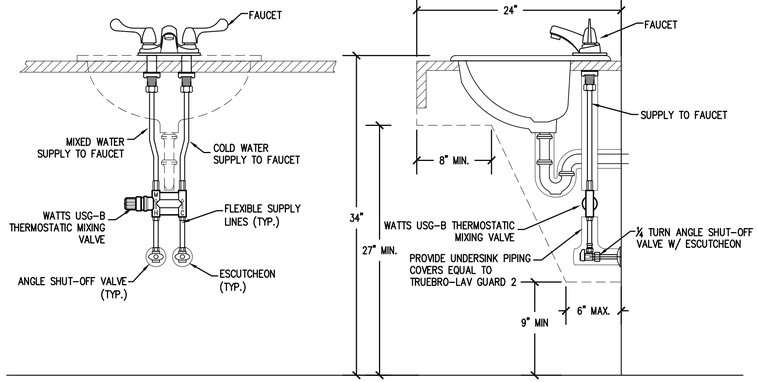
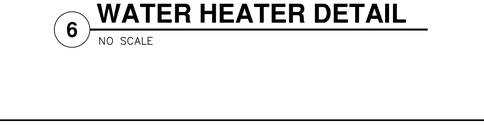


1 WATER SERVICE ENTRANCE DETAIL

NOT TO SCALE



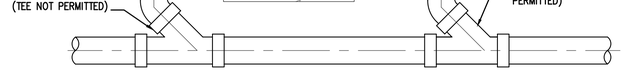


GENERAL NOTES

1. VENT THRU ROOF (VTR) FOR PIPE SIZES SMALLER THAN 3" MUST BE INCREASED TO MINIMUM OF 3".
2. INCREASE IN PIPE DIAMETER MUST BE MADE A MINIMUM OF 12" INSIDE THE BUILDING.

5 VENT THROUGH ROOF DETAIL

NO SCALE



2 CLEANOUT DETAIL

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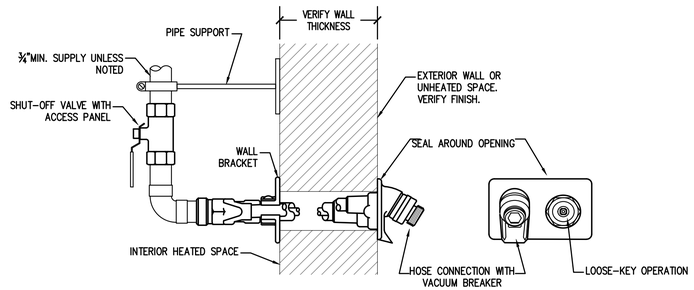

8 HOSE BIBB DETAIL

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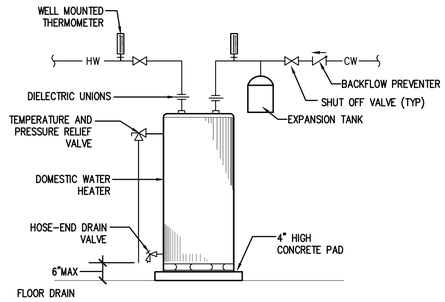

6 WATER HEATER DETAIL

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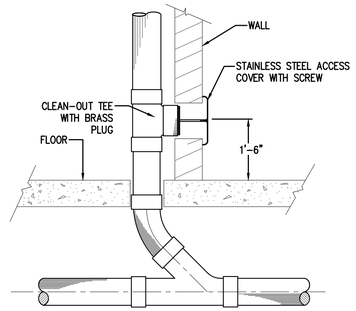

3 WALL CLEANOUT DETAIL

NO SCALE

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PLUMBING FIXTURE SCHEDULE

ID	DESCRIPTION		MANUF	MODEL NUMBER	MATERIAL	DIMENSIONS (IN)	TRIM MANUF	TRIM MODEL	HOT WATER (IN)	COLD WATER (IN)	SANITARY (IN)	NOTES
FD-1	6" DIAMETER FLOOR DRAIN WITH STRAINER		ZURN	Z415B	CAST IRON	6"	-	-	-	1/2	3	4
HB-1	AUTOMATIC DRAINING HOSE BIBB WITH VACUUM BREAKER		WOODFORD	65	BRASS	-	-	-	-	3/4	-	3
L-2	COUNTERTOP LAVATORY	♿	KOHLER	K-2196-4	VITREOUS CHINA	-	CHICAGO FAUCETS	802-V665E39ABCP	1/2	1/2	1-1/2	1,5
L-1	WALL-MOUNT LAVATORY	♿	KOHLER	K-1999-4	VITREOUS CHINA	-	CHICAGO FAUCETS	802-V665E39ABCP	1/2	1/2	1-1/2	1,5
SS-1	FLOOR MOUNTED MOP SINK		MUSTEE	63M	MOLDED FIBERGLASS	(1) 24x24	MUSTEE	63.600A	1/2	1/2	3	5
SH-1	1-STATION ADA WALL SHOWER WITH SHROUD	♿	ZURN	Z7500-HW	STAINLESS STEEL	6"x32"x2.5"			1/2	1/2		5,6,7
SH-2	1-STATION WALL SHOWER WITH SHROUD		ZURN	Z7500	STAINLESS STEEL	6"x32"x2.5"			1/2	1/2		6,7
U-1	WALL-HUNG URINAL WITH CONCEALED FLUSH	♿	KOHLER	4991-ER	VITREOUS CHINA		SLOAN	195-0.125-10-3/4-LDIM	-	3/4	2	5
U-2	WALL-HUNG URINAL WITH CONCEALED FLUSH		KOHLER	4991-ER	VITREOUS CHINA		SLOAN	195-0.125-10-3/4-LDIM	-	3/4	2	
WCO-1	WALL CLEANOUT WITH STAINLESS COVER AND PLUG		ZURN	Z1468	STAINLESS STEEL	-	-	-	-	-	-	
WC-1	WALL-MOUNT WATER CLOSET WITH CONCEALED FLUSH	♿	KOHLER	K-4323	VITREOUS CHINA		SLOAN	143-1.6-10-3/4-LDIM	-	1	3	2,5
WC-2	WALL-MOUNT WATER CLOSET WITH CONCEALED FLUSH		KOHLER	K-4323	VITREOUS CHINA		SLOAN	143-1.6-10-3/4-LDIM	-	1	3	2

Notes
1) Provide thermostatic mixing valve and trap wraps per ADA requirements.
2) Provide open front plastic elongated bowl seat. Flush handle to wide side of stall or per ADA requirements.
3) Provide isolation valve and drain in accessible location.
4) Provide with trap seal equal to "QUAD-CLOSE" by J.R. SMITH
5) Mount plumbing fixture per ADA requirements. Verify with general contractor.
6) Provide with ADA slide bar with hand shower.
7) Provide with complete coin operating system equal to WCS Cashmaster System 2. Include control module, fully recessed meter boxes, solenoid valves, keys, electronic coin acceptor and all wiring.

ELECTRIC WATER HEATER SCHEDULE

ID	MANUFACTURER	MODEL NUMBER	STORAGE CAPACITY (GAL)	RECOVERY RATE (GPM)	TEMP RISE (°F)	SIZE (IN)	HOT WATER (IN)	COLD WATER (IN)	ELECTRICAL			NOTES
									VOLTS	PHASE	KW	
EWH-1	BRADFORD WHITE	CEHD80303*CF	80	124	100	61"x26"	1-1/2"	1-1/2"	240	1	30	1,2
EWH-2	BRADFORD WHITE	E32-50S-3	50	74	100	47"x22"	1-1/4"	1-1/4"	240	1	18	1,2

Notes
1. PROVIDE TEMPERATURE AND PRESSURE RELIEF VALVE PER LOCAL CODE.
2. PROVIDE 4" THICK CONCRETE HOUSEKEEPING PAD.

PIPING INSULATION TYPES

TYPE	DESCRIPTION
P-1	ASTM C547, MOLDED GLASS FIBER PIPE INSULATION, OPERATING TEMPERATURE RANGE: 0 TO 850 DEG F, VAPOR BARRIER JACKET: ASTM C1136, TYPE I, FACTORY APPLIED REINFORCED FOIL DRAFT WITH SELF SEALING ADHESIVE JOINTS.
P-2	ASTM C534, TYPE I, FLEXILE, CLOSED CELL ELASTOMERIC INSULATION, TUBULAR, OPERATING TEMPERATURE RANGE: MINUS 70 TO 180 DEG F.

PIPING SYSTEM INSULATION SCHEDULE

SYSTEM TYPE	TYPE	PIPE SIZE	INSULATION THICKNESS
PLUMBING			
DOMESTIC HOT WATER SUPPLY AND RECIRCULATION	P-1	ALL SIZES	1"
DOMESTIC COLD WATER	P-1, P-2	1-1/4" AND SMALLER 1-1/2" AND LARGER	1/2" 1"

PIPE LABELING AND PAINTING SCHEDULE

SYSTEM TYPE	LETTERING COLOR	BACKGROUND COLOR	LABEL	PAINT COLOR
DOMESTIC (POTABLE) COLD WATER	WHITE	GREEN	DCWS	
DOMESTIC HOT (POTABLE) WATER SUPPLY	WHITE	GREEN	DHWS	
DOMESTIC HOT (POTABLE) WATER RECIRULATION	WHITE	GREEN	DHWR	

NOTES:
1. INCLUDE DIRECTIONAL FLOW ARROWS
2. MARKERS TO BE VISIBLE FROM POINT OF NORMAL APPROACH.

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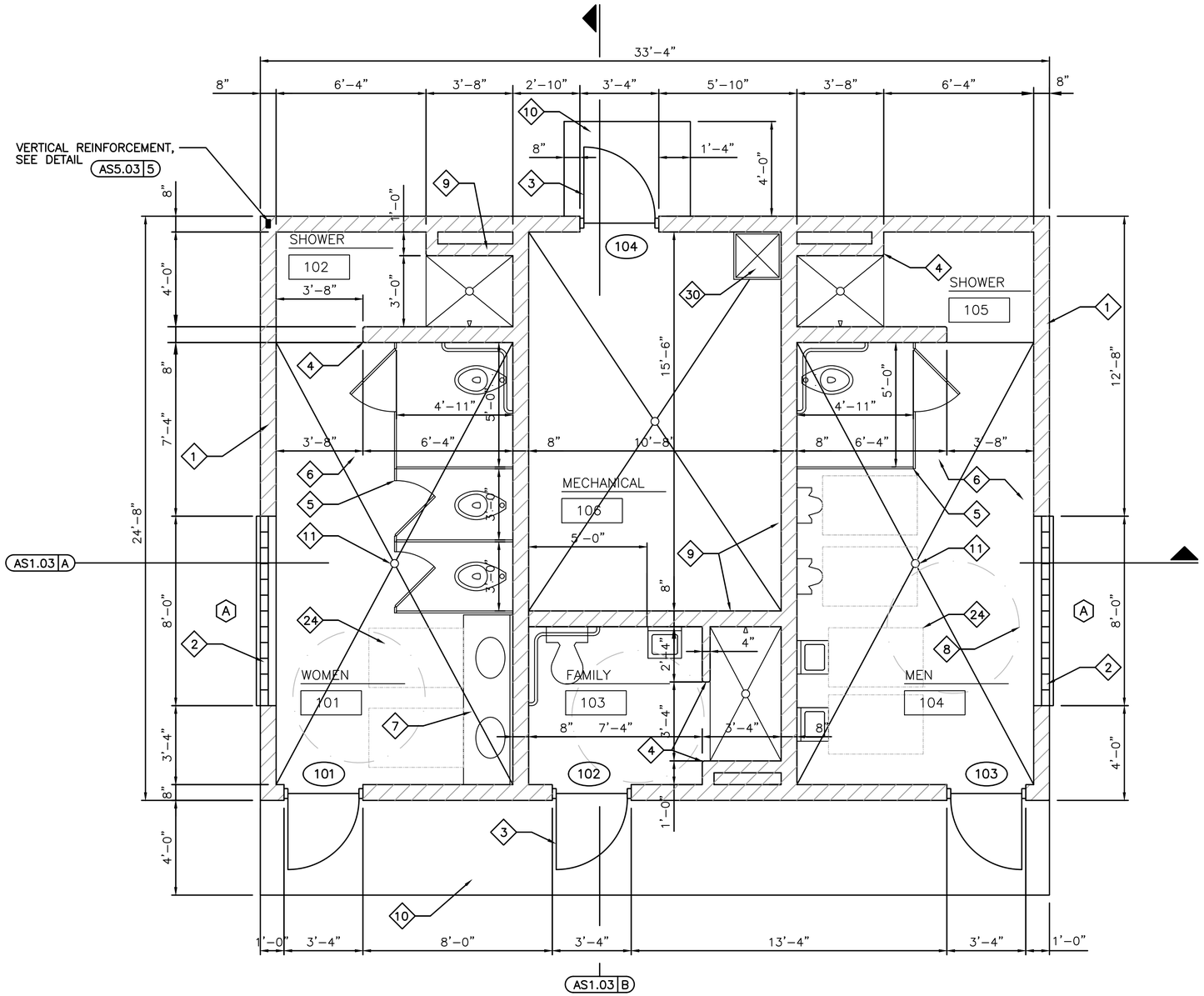

GENERAL NOTES

1. REFERENCE SHEET AS5.01 FOR DOOR, WINDOW AND ROOM FINISH SCHEDULE
2. SEE SHEET AS5.04 FOR ADA FIXTURE AND ACCESSORY MOUNTING HEIGHTS

KEYNOTES

1. 8" INTEGRALLY COLORED CONCRETE BLOCK
2. GLASS BLOCK WINDOW W/ PRECAST CONCRETE SILL
3. HOLLOW METAL DOOR & FRAME, PAINT (TYPICAL)
4. BULLNOSE CONCRETE BLOCK @ INTERIOR OUTSIDE CORNERS
5. PREFINISHED METAL TOILET COMPARTMENTS
6. 4" NON-SKID SEALED CONCRETE FLOOR, SLOPE FLOOR @ ¼" PER FOOT W/ 6x6-W2.9xW2.9 WWF
7. PLASTIC LAMINATE COUNTERTOP
8. 67" ADA TURN RADIUS (TYPICAL)
9. SMOOTH FACE CONCRETE MASONRY UNITS, PAINT (TYPICAL)
10. CONCRETE STOOP, SEE DETAIL 3/AS5.03
11. FLOOR DRAIN
12. CONTROL JOINT, SEE DETAIL 4/AS5.03
13. 22"x30" ATTIC ACCESS PANEL
14. CONTINUOUS RIDGE VENT
15. GLASSBOARD CEILING PANEL
16. PREFINISHED ALUMINUM FASCIA & SOFFIT PANELS
17. ⅝" EXTERIOR PLYWOOD SHEATHING OVER WOOD TRUSS @ 24" O.C.
18. 26 GAUGE METAL ROOF PANEL
19. GRADE
20. EXTERIOR LIGHTING FIXTURE, TYPICAL
21. EXTERIOR SIGNAGE, TYPICAL
22. 10 MIL POLY VAPOR BARRIER BELOW ALL CONCRETE SLABS, TYPICAL
23. MIN. R-40 ATTIC INSULATION
24. ACCESSIBLE ADA CLEAR SPACE, TYPICAL
25. 2" PERIMETER INSULATION
26. REINFORCED CONCRETE FOUNDATION WALL AND FOOTING, SEE 5/AS5.02
27. REINFORCED THICKENED SLAB
28. 26 GAUGE SIDING PANEL
29. UNVENTED ALUMINUM SOFFIT
30. MOP SINK
31. SEE MECHANICALS FOR LOUVER OPENINGS

TRUE NORTH

PLAN NORTH

Foth
UPEA ENGINEERS & ARCHITECTS
SMITHGROUP

BID DRAWINGS
MARINA RECONSTRUCTION, CONTRACT 4
SAXON HARBOR RECONSTRUCTION,
FEMA DISASTER #4276
IRON COUNTY FORESTRY
AND PARKS DEPARTMENT
HURLEY, WISCONSIN

IRON COUNTY WISCONSIN

REVISIONS			
NO.	BY	DATE	DESCRIPTION
	DEC	2-28-2019	ISSUED FOR CONSTRUCTION

NOT FOR CONSTRUCTION

RECORD DRAWING OF COMPLETED CONSTRUCTION BY:

RECORD DRAWINGS OF COMPLETED CONSTRUCTION CONFORMING TO CONTRACTOR AND/OR OWNERS RECORDS

BY _____ DATE _____

DATE OF PREPARATION

	BY	DATE
SURVEYED		
DRAWN	DEC	2-28-2019
DESIGNED	DEC/KMA	
CHECKED	BJS1	2-28-2019

FLOOR PLAN

CAMPGROUND RESTROOM

SCALE: ⅜" = 1'-0"
0 2 4

PROJECT ID: 17I007.00

AS1.01

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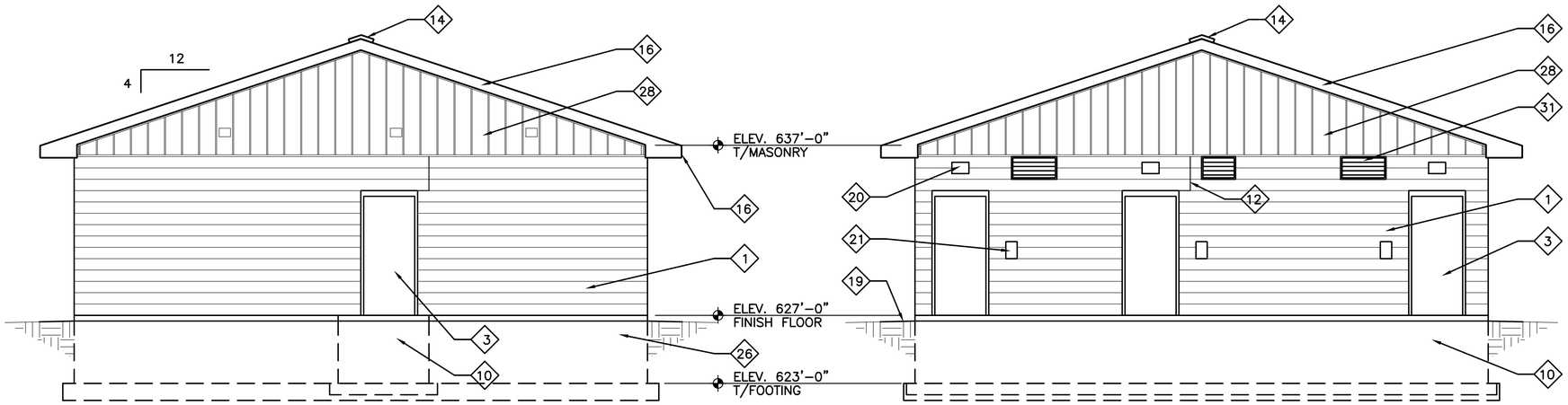
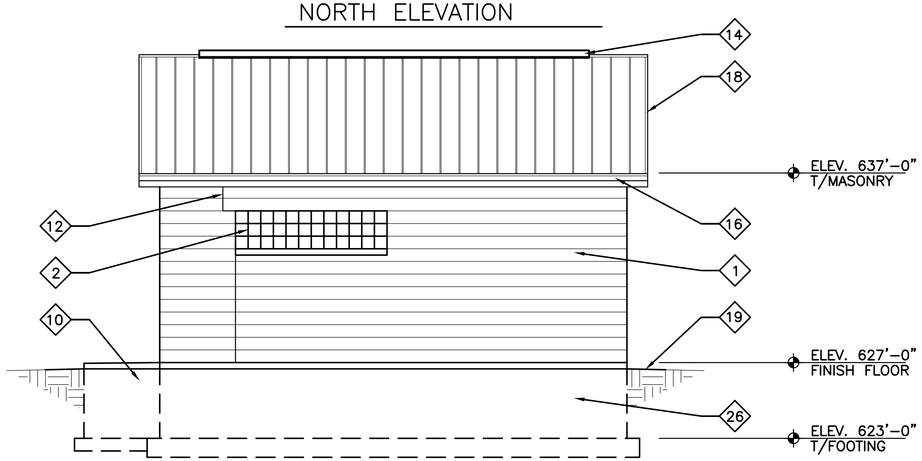
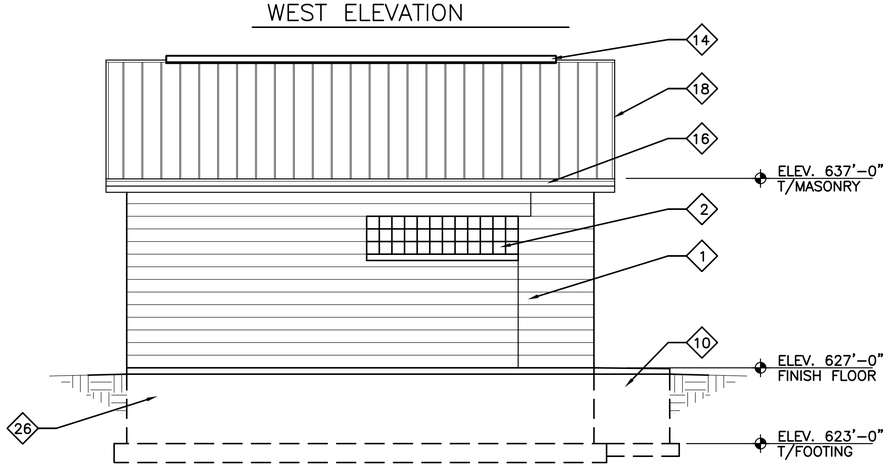


NORTH ELEVATION

SOUTH ELEVATION



WEST ELEVATION



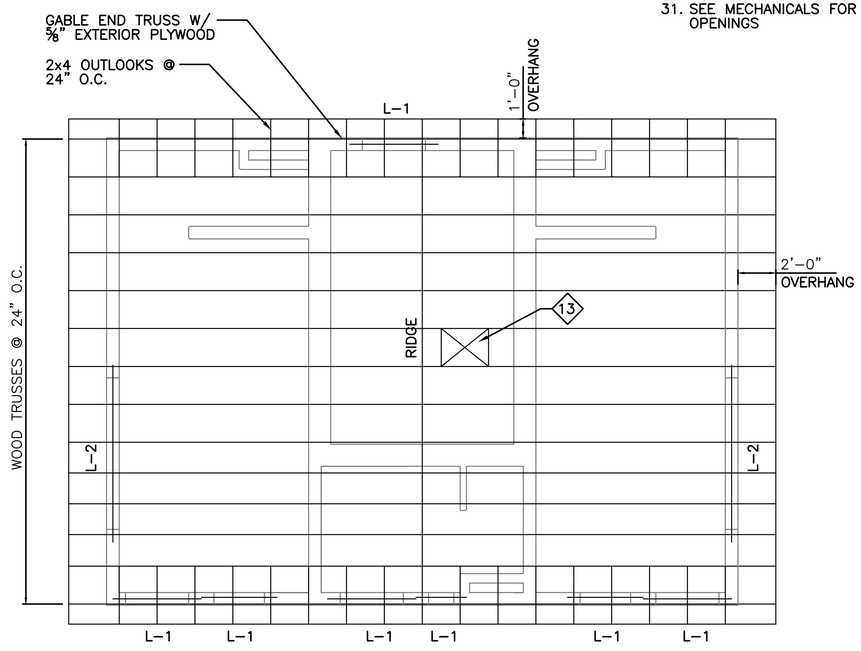
EAST ELEVATION

GENERAL NOTES

1. REFERENCE SHEET AS5.01 FOR DOOR, WINDOW AND ROOM FINISH SCHEDULE
2. SEE SHEET AS5.04 FOR ADA FIXTURE AND ACCESSORY MOUNTING HEIGHTS

KEYNOTES

1. 8" INTEGRALLY COLORED CONCRETE BLOCK
2. GLASS BLOCK WINDOW W/ PRECAST CONCRETE SILL
3. HOLLOW METAL DOOR & FRAME, PAINT (TYPICAL)
4. BULLNOSE CONCRETE BLOCK @ INTERIOR OUTSIDE CORNERS
5. PREFINISHED METAL TOILET COMPARTMENTS
6. 4" NON-SKID SEALED CONCRETE FLOOR, SLOPE FLOOR @ ⅛" PER FOOT W/ 6x6-W2.9xW2.9 WWF
7. PLASTIC LAMINATE COUNTERTOP
8. 67" ADA TURN RADIUS (TYPICAL)
9. SMOOTH FACE CONCRETE MASONRY UNITS, PAINT (TYPICAL)
10. CONCRETE STOOP, SEE DETAIL 3/AS5.03
11. FLOOR DRAIN
12. CONTROL JOINT, SEE DETAIL 4/AS5.03
13. 22"x30" ATTIC ACCESS PANEL
14. CONTINUOUS RIDGE VENT
15. GLASSBOARD CEILING PANEL
16. PREFINISHED ALUMINUM FASCIA & SOFFIT PANELS
17. ⅝" EXTERIOR PLYWOOD SHEATHING OVER WOOD TRUSS @ 24" O.C.
18. 26 GAUGE METAL ROOF PANEL
19. GRADE
20. EXTERIOR LIGHTING FIXTURE, TYPICAL
21. EXTERIOR SIGNAGE, TYPICAL
22. 10 MIL POLY VAPOR BARRIER BELOW ALL CONCRETE SLABS, TYPICAL
23. MIN. R-40 ATTIC INSULATION
24. ACCESSIBLE ADA CLEAR SPACE, TYPICAL
25. 2" PERIMETER INSULATION
26. REINFORCED CONCRETE FOUNDATION WALL AND FOOTING, SEE 5/AS5.02
27. REINFORCED THICKENED SLAB
28. 26 GAUGE SIDING PANEL
29. UNVENTED ALUMINUM SOFFIT
30. MOP SINK
31. SEE MECHANICALS FOR LOUVER OPENINGS



ROOF FRAMING PLAN

TRUE NORTH

PLAN NORTH

Foth
UPEA ENGINEERS & ARCHITECTS
SMITHGROUP

BID DRAWINGS
MARINA RECONSTRUCTION, CONTRACT 4
SAXON HARBOR RECONSTRUCTION,
FEMA DISASTER #4276
IRON COUNTY FORESTRY
AND PARKS DEPARTMENT
HURLEY, WISCONSIN

WISCONSIN

IRON COUNTY

NO.	BY	DATE	REVISIONS DESCRIPTION
	DEC	10/1/19	ISSUED FOR CONSTRUCTION

NOT FOR CONSTRUCTION

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ELEVATIONS & ROOF FRAMING PLAN

CAMPGROUND RESTROOM

SCALE: ¼" = 1'-0"

0 2 4

PROJECT ID: 17I007.00

AS1.02

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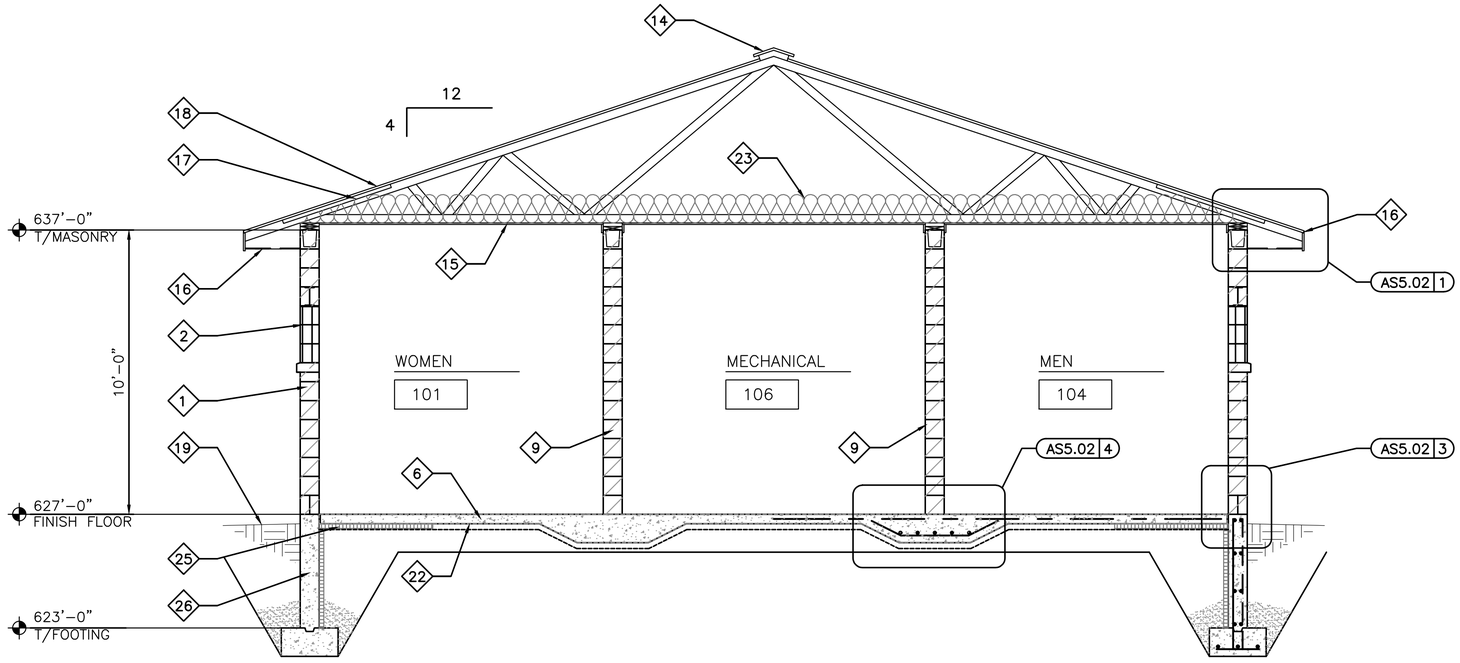
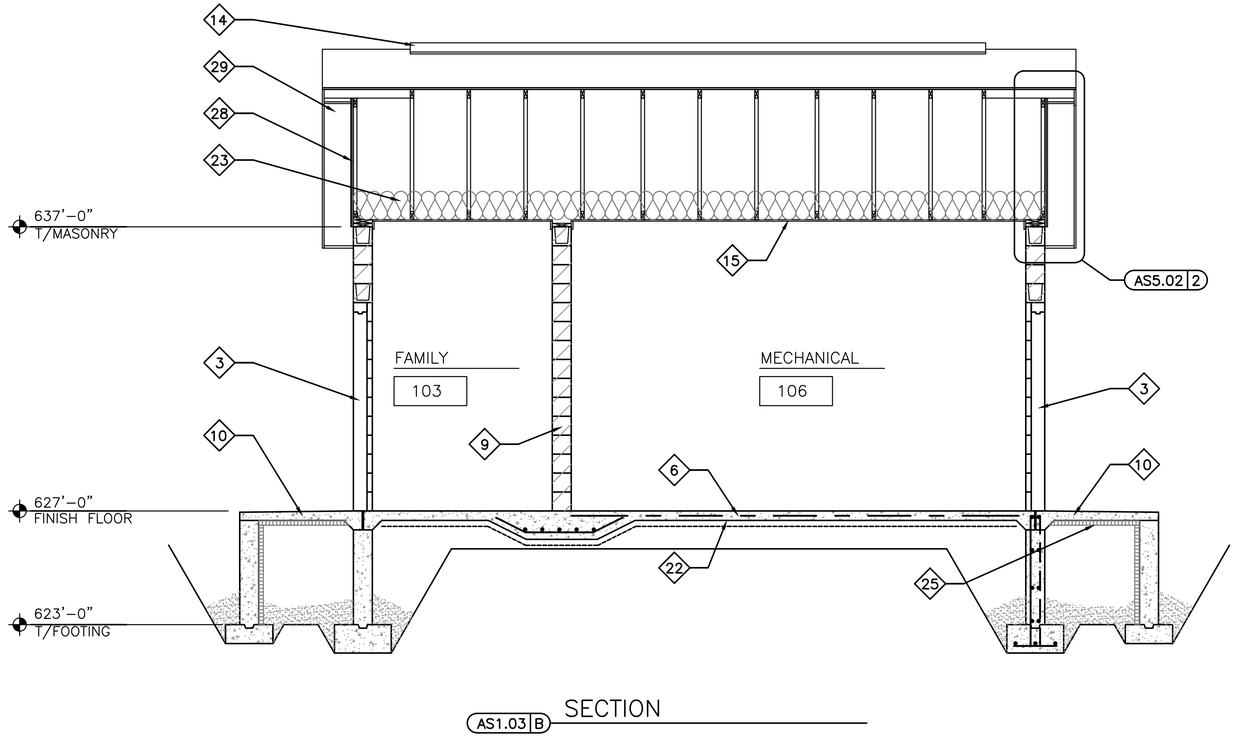


AS1.03 A SECTION



AS1.03 B SECTION

GENERAL NOTES

1. REFERENCE SHEET AS5.01 FOR DOOR, WINDOW AND ROOM FINISH SCHEDULE
2. SEE SHEET AS5.04 FOR ADA FIXTURE AND ACCESSORY MOUNTING HEIGHTS

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Foth UPEA ENGINEERS & ARCHITECTS
SMITHGROUP

BID DRAWINGS
MARINA RECONSTRUCTION, CONTRACT 4
SAXON HARBOR RECONSTRUCTION,
FEMA DISASTER #4276
IRON COUNTY FORESTRY
AND PARKS DEPARTMENT
HURLEY, WISCONSIN

IRON COUNTY WISCONSIN

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REVISIONS

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BUILDING SECTIONS

CAMPGROUND RESTROOM

SCALE: ⅜" = 1'-0"

0 2 4

PROJECT ID: 171007.00

AS1.03

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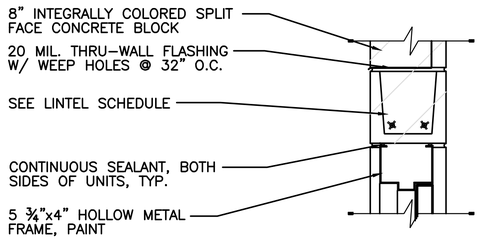
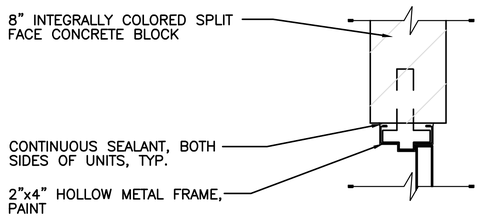


AS5.01 | 1 DOOR DETAIL (HEAD)
SCALE: 1" = 1'-0"



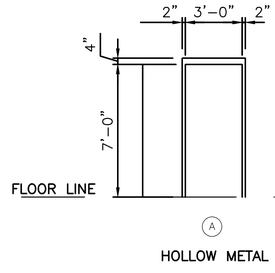
AS5.01 | 2 DOOR DETAIL (JAMB)
SCALE: 1" = 1'-0"
(PROVIDE 3 MASONRY ANCHORS PER JAMB)

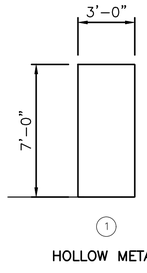
ROOM FINISH SCHEDULE

ROOM NAME	NO.	FLOOR MATERIAL	BASE MATERIAL	WALL MATERIAL / FINISH				CEILING		REMARKS
				NORTH	EAST	SOUTH	WEST	MATERIAL	HEIGHT	
WOMEN	101									
SHOWER	102	SEALED CONCRETE	——	PAINT ON CONC. BLOCK	PAINT ON CONC. BLOCK	PAINT ON CONC. BLOCK	PAINT ON CONC. BLOCK	GLASSBOARD	10'-0"	
STORAGE	103	SEALED CONCRETE	——	PAINT ON CONC. BLOCK	PAINT ON CONC. BLOCK	PAINT ON CONC. BLOCK	PAINT ON CONC. BLOCK	GLASSBOARD	10'-0"	
FAMILY	104	SEALED CONCRETE	——	PAINT ON CONC. BLOCK	PAINT ON CONC. BLOCK	PAINT ON CONC. BLOCK	PAINT ON CONC. BLOCK	GLASSBOARD	10'-0"	
MEN	105	SEALED CONCRETE	——	PAINT ON CONC. BLOCK	PAINT ON CONC. BLOCK	PAINT ON CONC. BLOCK	PAINT ON CONC. BLOCK	GLASSBOARD	10'-0"	
SHOWER	106	SEALED CONCRETE	——	PAINT ON CONC. BLOCK	PAINT ON CONC. BLOCK	PAINT ON CONC. BLOCK	PAINT ON CONC. BLOCK	GLASSBOARD	10'-0"	
MECHANICAL	107	SEALED CONCRETE	——	PAINT ON CONC. BLOCK	PAINT ON CONC. BLOCK	PAINT ON CONC. BLOCK	PAINT ON CONC. BLOCK	GLASSBOARD	10'-0"	

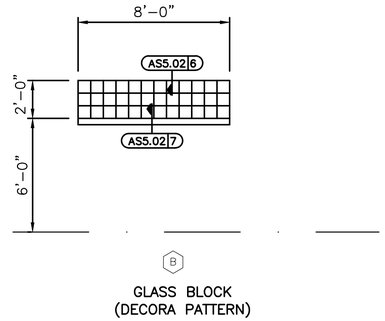
DOOR & FRAME SCHEDULE

FRAME							DOOR						
NO.	TYPE	MATERIAL	FINISH		DETAIL		TYPE	SIZE	MATERIAL	FINISH		HDWARE	REMARKS
			TYPE	APPLIED	HEAD	JAMB				TYPE	APPLIED		
101	A	HOLLOW METAL	PAINT	FIELD	1	2	1	3'-0" X 7'-0"	HOLLOW METAL	PAINT	FIELD	3	
102	A	HOLLOW METAL	PAINT	FIELD	1	2	1	3'-0" X 7'-0"	HOLLOW METAL	PAINT	FIELD	3	
103	A	HOLLOW METAL	PAINT	FIELD	1	2	1	3'-0" X 7'-0"	HOLLOW METAL	PAINT	FIELD	1	
104	A	HOLLOW METAL	PAINT	FIELD	1	2	1	3'-0" X 7'-0"	HOLLOW METAL	PAINT	FIELD	2	
105	A	HOLLOW METAL	PAINT	FIELD	1	2	1	3'-0" X 7'-0"	HOLLOW METAL	PAINT	FIELD	1	





DOOR & FRAME TYPES
SCALE: ¼" = 1'-0"



WINDOW TYPES
SCALE: ¼" = 1'-0"

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UPEA ENGINEERS & ARCHITECTS
SMITHGROUP

BID DRAWINGS
MARINA RECONSTRUCTION, CONTRACT 4
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SCHEDULES & DETAILS

AS SHOWN

PROJECT ID: 17I007.00

AS5.01

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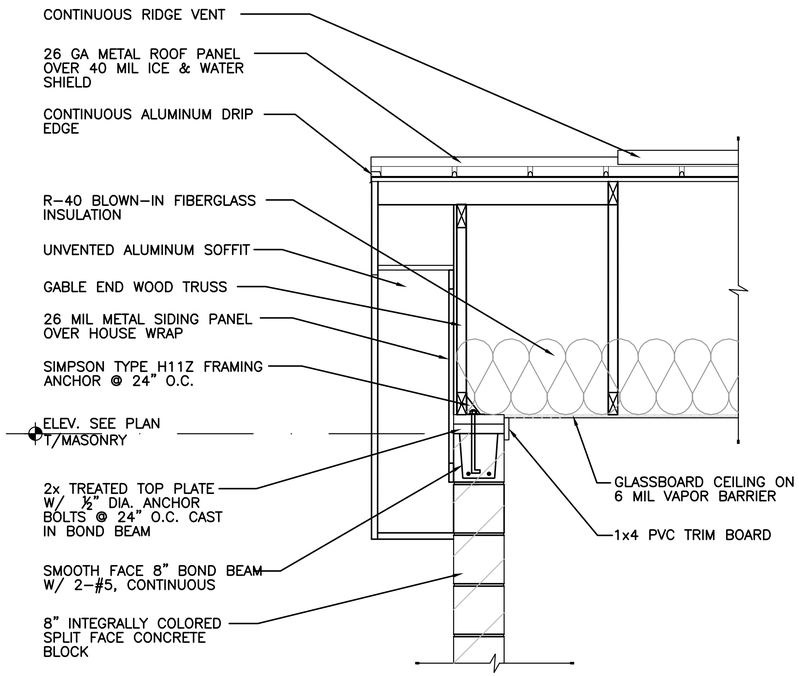
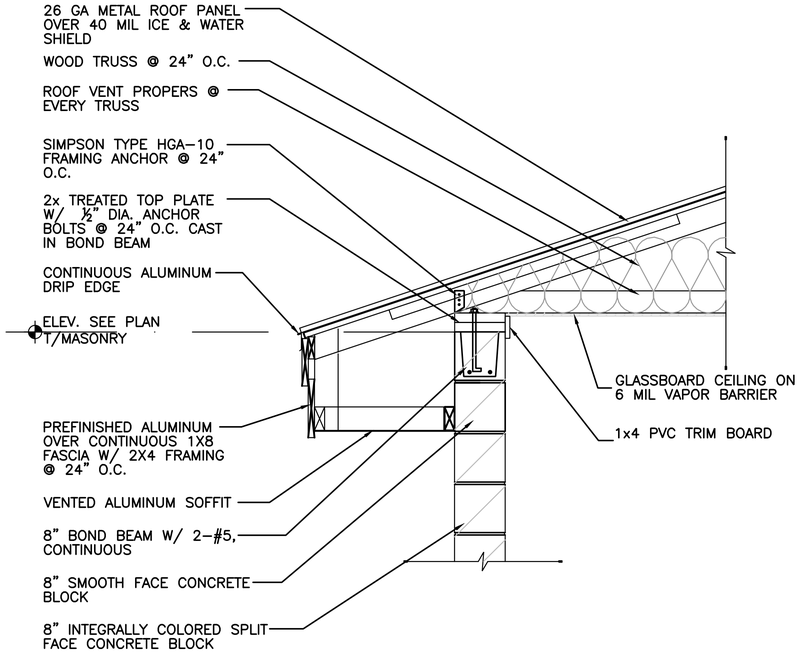
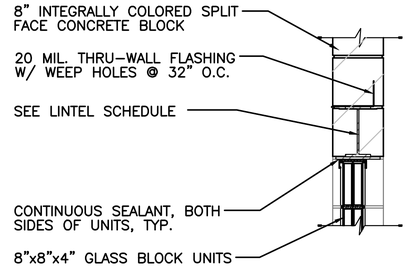


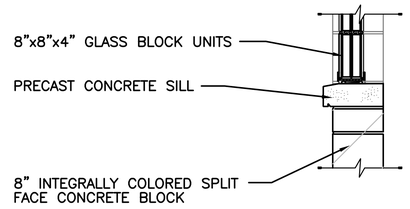
AS5.02|2 GABLE ROOF EDGE DETAIL



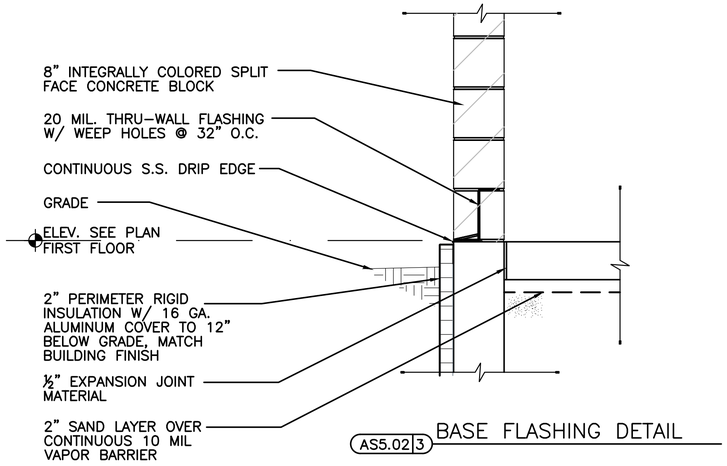
AS5.02|1 ROOF EAVE DETAIL



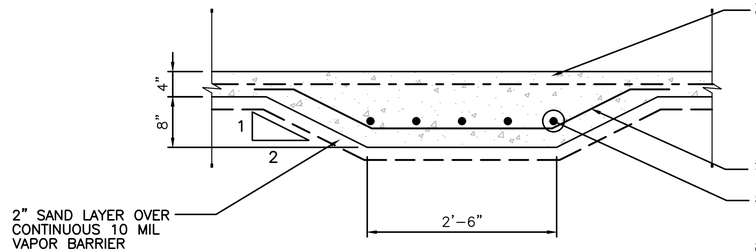
AS5.02|6 WINDOW DETAIL (HEAD)



AS5.02|7 WINDOW DETAIL (SILL)

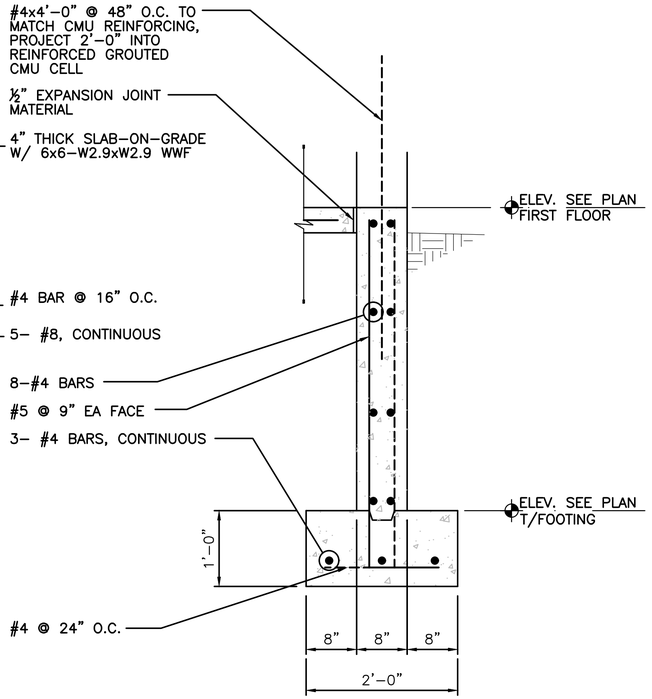


AS5.02|3 BASE FLASHING DETAIL



AS5.02|4 THICKENED SLAB (TYP.)

AS5.02|5 NOT USED



AS5.02|8 FOOTING DETAIL (TYP.)

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SAXON HARBOR RECONSTRUCTION,
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HURLEY, WISCONSIN

IRON COUNTY WISCONSIN

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STANDARD DETAILS

AS SHOWN

PROJECT ID: 17I007.00

AS5.02

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GENERAL STRUCTURAL NOTES

DESIGN CRITERIA

1. SUPERIMPOSED DESIGN LOADS
   - A. GENERAL
     - BUILDING OCCUPANCY CATEGORY II
     - BUILDING CODE – 2015 INTERNATIONAL BUILDING CODE
   - B. WIND LOAD

BASIC WIND SPEED:	90 MPH
WIND IMPORTANCE FACTOR:	I_w = 1.0
WIND EXPOSURE CATEGORY:	C

   - C. SNOW LOAD

GROUND SNOW LOAD	P_g = 60 PSF	SEE SNOW LOAD DIAGRAMS
FLAT ROOF SNOW LOAD	P_f = 47 PSF	
SNOW EXPOSURE FACTOR	C_e = 1.0	
SNOW ROOF SLOPE FACTOR	C_s = 1.0	
SNOW IMPORTANCE FACTOR	I_s = 1.0	
THERMAL FACTOR	C_t = 1.0	

   - D. EARTHQUAKE LOAD

SEISMIC IMPORTANCE FACTOR	I_E = 1.0
S_{DS} = .076 ; S_{DI} = .056	
S_S = .095 ; S_1 = .049	
SITE CLASS	D
SEISMIC DESIGN CATEGORY	A

   - E. ROOF SUPERIMPOSED DEAD LOAD

TRUSSES, DECK, INSULATION & ROOFING	12 PSF	15 PSF
ELECTRICAL/MECHANICAL	3 PSF	

   - F. STAIRS AND WALKWAYS 100 PSF
   - G. FLOOR LIVE LOAD 100 PSF
2. REQUIRED SOIL BEARING CAPACITY 2000 PSF

   SOIL BEARING CAPACITY IS BASED ON "SOIL REPORT AND CONSTRUCTION RECOMMENDATIONS FOR THE PROPOSED SAXON HARBOR REHABILITATION, IRON COUNTY, WISCONSIN" DATED MARCH 2, 2018, PRPARED BY U.P. ENGINEERS & ARCHITECTS, INC.

CONCRETE

1.	REINFORCING BARS	ASTM A615, GRADE 60
2.	CAST–IN–PLACE CONCRETE	F'c = 3500 PSI
3.	CONCRETE EXPOSURE	CLASSES F2; S0; P1; C1 (SEE ACI 318–08, TABLE 4.2.1)
4.	PROVIDE THE FOLLOWING COVER FOR REINFORCEMENT	
	A. CAST AGAINST EARTH	3"
	B. EXPOSED TO EARTH, WEATHER OR WATER	2"
	C. NOT EXPOSED TO EARTH, WEATHER OR WATER	
	1) SLABS AND WALLS	1"
	2) BEAMS AND COLUMNS	1½"

METALS

1.	STEEL	
	A. STEEL W & WT SHAPES	ASTM A992
	B. OTHER STRUCTURAL & MISC STEEL	ASTM A36
	C. STEEL HSS	ASTM A500, GRADE B
	D. STEEL PIPE	ASTM A53, GRADE B
	E. BOLTED CONNECTIONS	ASTM A325–N, SNUG TIGHT CONDITION U.N.O.
	F. ANCHOR BOLTS	ASTM A36 (OR ASTM F1554, GRADE 36)
	G. WELDING ELECTRODES	E70XX
2.	STAINLESS STEEL	
	A. BOLTS	ASTM F593, GRADE 304 GRADES B8 AND B8A, REGULAR HEXAGONAL HEAD
	B. NUTS	ASTM F594, GRADE 304 GRADES 8 AND 8A, REGULAR HEXAGONAL HEAD

WOOD

1.	SILLS & BLOCKING	SPRUCE–PINE–FIR NO. 2 OR BETTER

MASONRY

1.	CONCRETE MASONRY UNITS	ASTM C90, NORMAL WEIGHT
2.	MORTAR	TYPE S
3.	NET COMPRESSIVE STRENGTH @ 28 DAYS	F'm = 1500 PSI

MINIMUM REINFORCEMENT BAR SPLICE LENGTH

BAR SIZE	TENSION SPLICE		COMPRESSION SPLICE
	TOP BARS	OTHERS	
3	23"	18"	12"
4	31"	24"	15"
5	38"	30"	19"
6	46"	35"	23"
7	67"	51"	26"
8	76"	59"	30"
9	86"	66"	34"
10	96"	74"	38"
11	107"	82"	42"

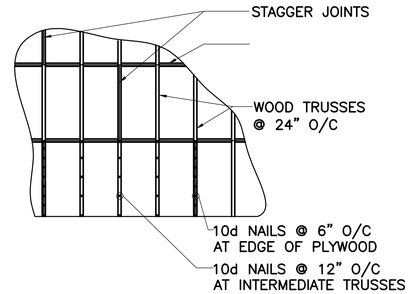
NOTES:
1. TOP BARS ARE ANY HORIZONTAL BARS SO PLACED THAT MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR
2. WHEN SPLICING TWO DIFFERENT SIZE BARS USE THE SPLICE LENGTH OF THE SMALLER BAR UNLESS NOTED OTHERWISE
3. COMPRESSION SPLICE FOR VERTICAL COLUMN BARS ONLY.

FY=60,000 P.S.I.
FC'=3,500 P.S.I.

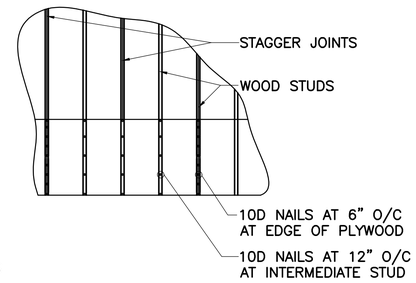
LINTEL SCHEDULE

MARK	DESCRIPTION	SKETCH	REMARKS
L–1	8"x8" BOND BEAM W/ 2 – #5 CONT		8" BEARING EACH END SEE NOTE #1
L–2	W8x18 W/ PL ⅜"x7" WELDED TO BOTTOM OF BEAM		8" BEARING EACH END SEE NOTE #1

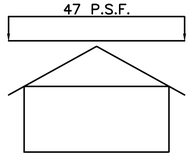
NOTES:
1. FILL BLOCK CORES W/ GROUT FULL HEIGHT OF WALL BENEATH LINTEL BEARING.



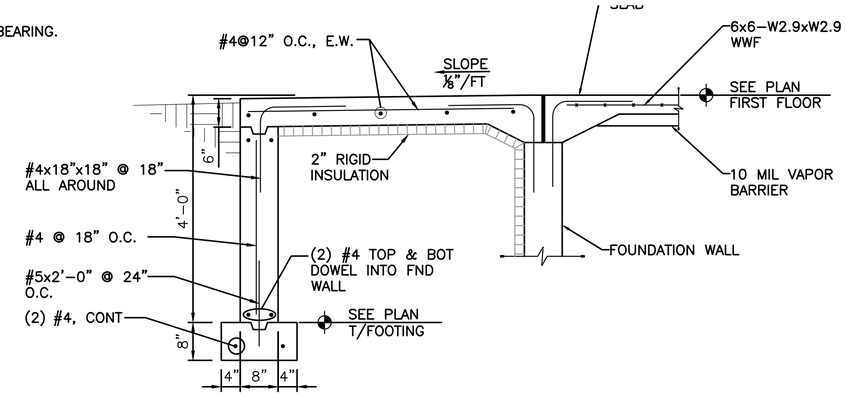
PLAN–ROOF TRUSS NAILING DETAIL
AS5.03 | 1 SCALE : 1/4" = 1'–0"



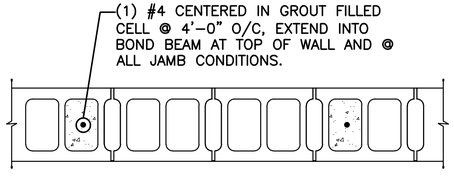
ELEVATION – GABLE WALL NAILING DETAIL
AS5.03 | 2 SCALE : 1/4" = 1'–0"



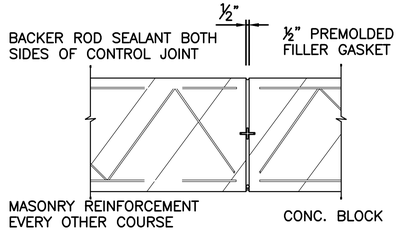
BALANCED & UNBALANCED SNOW LOAD DIAGRAM



AS5.03 | 3 DOOR STOOP



AS5.03 | 5 REINFORCEMENT DETAIL



AS5.03 | 4 CONTROL JOINT

Foth UPEA ENGINEERS & ARCHITECTS SMITHGROUP

BID DRAWINGS
MARINA RECONSTRUCTION, CONTRACT 4
SAXON HARBOR RECONSTRUCTION,
FEMA DISASTER #4276
IRON COUNTY FORESTRY
AND PARKS DEPARTMENT
HURLEY, WISCONSIN

IRON COUNTY WISCONSIN

NO.	BY	DATE	DESCRIPTION
	DEC		ISSUED FOR CONSTRUCTION

RECORD DRAWING OF COMPLETED CONSTRUCTION BY:
RECORD DRAWINGS OF COMPLETED CONSTRUCTION CONFORMING TO CONTRACTOR AND/OR OWNERS RECORDS
BY _____ DATE _____

NOT FOR CONSTRUCTION

DATE OF PREPARATION

	BY	DATE
SURVEYED		
DRAWN	DEC	2-28-2019
DESIGNED	DEC/KMA	
CHECKED	BJS1	2-28-2019

DETAILS & SCHEDULES

AS SHOWN

PROJECT ID: 17I007.00

AS5.03

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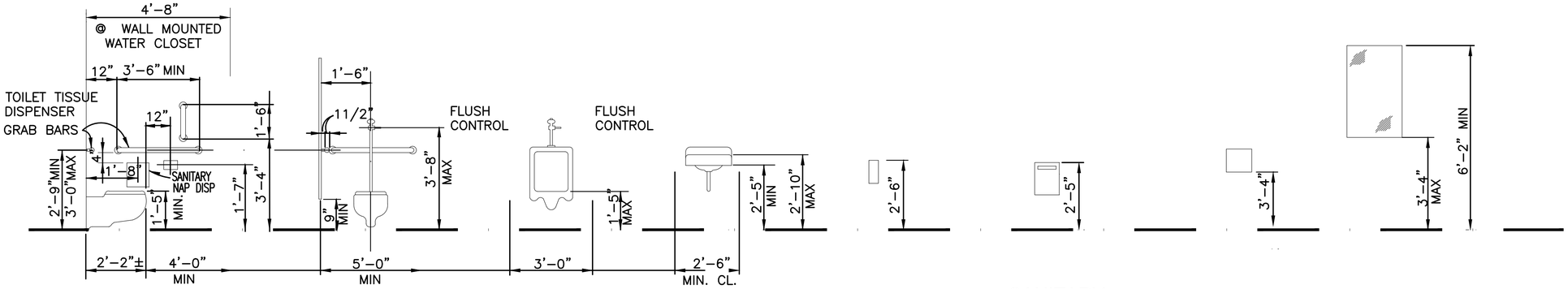
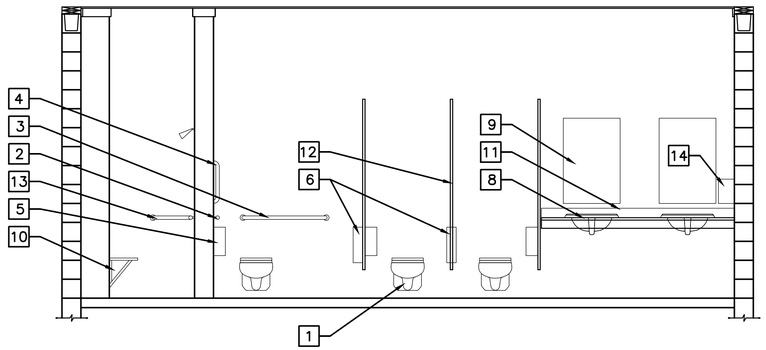
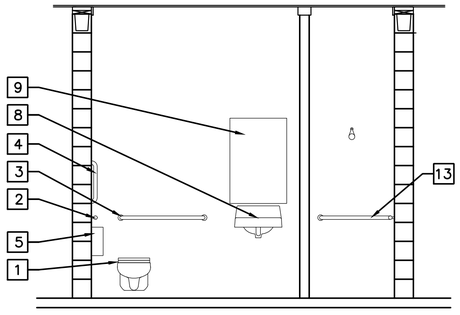


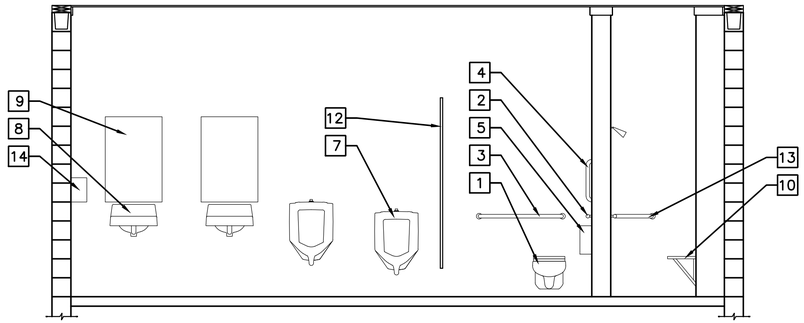
A.D.A. MOUNTING HEIGHTS FOR FIXTURES & ACCESSORIES



ROOMS 101 & 102 WOMENS TOILET
AND SHOWER ROOM ELEVATION



103 FAMILY ROOM ELEVATION



ROOMS 104 & 105 MENS TOILET AND
SHOWER ROOM ELEVATION

FIXTURE KEY

1. WATER CLOSET
2. 36" GRAB BAR
3. 48" GRAB BAR
4. 18" GRAB BAR
5. TOILET PAPER DISPENSER
6. SANITARY NAPKIN DISPOSAL
7. URINAL
8. LAVATORY
9. MIRROR
10. FOLDING SHOWER SEAT
11. PLASTIC LAMINATE COUNTERTOP
12. METAL TOILET PARTITIONS
13. HORIZONTAL TWO WALL BAR
14. HAND DRYER

Foth
UPEA ENGINEERS & ARCHITECTS
SMITHGROUP

BID DRAWINGS
MARINA RECONSTRUCTION, CONTRACT 4
SAXON HARBOR RECONSTRUCTION,
FEMA DISASTER #4276
IRON COUNTY FORESTRY
AND PARKS DEPARTMENT
HURLEY, WISCONSIN

IRON COUNTY WISCONSIN

NO.	BY	DATE	DESCRIPTION
	DEC	10/1/19	ISSUED FOR CONSTRUCTION

NOT FOR CONSTRUCTION

RECORD DRAWING OF COMPLETED CONSTRUCTION BY:
RECORD DRAWINGS OF COMPLETED CONSTRUCTION CONFORMING TO CONTRACTOR AND/OR OWNERS RECORDS.
DATE _____
BY _____

DATE OF PREPARATION

	BY	DATE
SURVEYED		
DRAWN	DEC	2-28-2019
DESIGNED	DEC/KMA	
CHECKED	BJS1	2-28-2019

TOILET ROOM
MOUNTING
HEIGHTS &
ELEVATIONS

SCALE: ¼" = 1'–0"
0 2 4

PROJECT ID: 17I007.00

AS5.04

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1. SITE IS IN USDA PLANT HARDINESS ZONE 4B.
2. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO COMMENCING WORK UNDER THIS CONTRACT AND REQUEST THAT UNDERGROUND UTILITIES BE LOCATED IN ACCORDANCE WITH SECTION 182.0175(2) OF THE WISCONSIN STATUTES. ANY UTILITY LOCATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE ONLY, AND OTHER UTILITIES MAY BE PRESENT.
3. SEEDING APPLIES TO ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES EVEN IF ACTIVITIES EXTEND BEYOND THE APPROXIMATED SEEDING LIMITS INDICATED ON THE DRAWINGS. REPAIR ANY DISTURBED AREAS TO THE SAME CONDITION AS ORIGINALLY FOUND AND TO THE OWNER'S SATISFACTION. REFER TO SPECIFICATIONS FOR SEED MIXES.
4. UTILIZE HORTICULTURAL TREE WATERING BAGS FOR TREES THROUGHOUT WARRANTY PERIOD. REPLENISH TREE WATERING BAGS REGULARLY SO THAT NONE REMAIN WITHOUT WATER FOR MORE THAN 24 HOURS.
5. MINIMIZE CULTIVATION WITHIN THE DRIPLINES OF EXISTING TREES TO REMAIN. PREPARE SOIL FOR SEEDING BY MINIMIZING DISTURBANCE TO 4-INCH DEPTH. HAND CULTIVATE WHEN ENCOUNTERING ROOTS. NO HEAVY EQUIPMENT ALLOWED WITHIN DRIPLINE OF EXISTING TREES.
6. SEE SHEET L501 FOR PLANT LIST.
7. SEE CIVIL PLANS FOR EROSION CONTROL MAT.

TURF SEED MIX

NATIVE SEED

BIOFILTRATION AREA
(NATIVE SEED + PLUGS)

Foth

SMITHGROUP

UPEA ENGINEERS & ARCHITECTS

BID DRAWINGS
MARINA RECONSTRUCTION, CONTRACT 4
SAXON HARBOR RECONSTRUCTION
FEMA DISASTER #4276
IRON COUNTY FORESTRY
AND PARKS DEPARTMENT
HURLEY, WISCONSIN

WISCONSIN

IRON COUNTY

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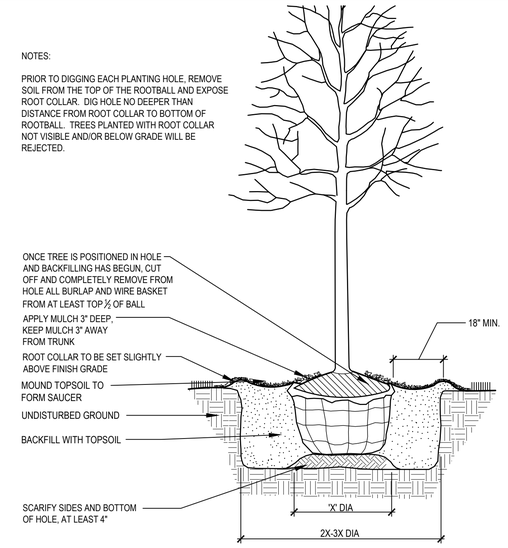
SYM	SCIENTIFIC NAME	COMMON NAME	QNTY	ROOT	SIZE	COMMENTS / SPACING
	Deciduous Canopy Trees					
AF	Acer x freemanii 'Firefall'	Firefall Maple	9	B&B	2-1/2" Caliper	
AR	Acer rubrum 'Northwood'	Northwood Maple	8	B&B	2-1/2" Caliper	
AS-R	Acer saccharum	Sugar Maple	15	Bare Root	12-18" Ht.	
AS	Acer saccharum'Bailsta'	Fall Fiesta Sugar Maple	5	B&B	2-1/2" Caliper	
BA	Betula allegheniensis	Yellow Birch	2	B&B	2-1/2" Caliper	
BA-R	Betula allegheniensis	Yellow Birch	8	Bare Root	12-18" Ht.	
BP	Betula papyrifera	Paper Birch	9	B&B	2-1/2" Caliper	Multistem, 3-5 trunks
PG-R	Populus grandidentata	Big-Tooth Aspen	8	Bare Root	2-1/2" Caliper	
PR-R	Prunus serotina	Black Cherry	5	Bare Root	12-18" Ht.	
TA	Tilia americana	American Basswood	5	B&B	2-1/2" Caliper	
UA	Ulmus americana 'Princeton'	Princeton American Elm	4	B&B	2-1/2" Caliper	
	Evergreen Trees					
AB	Abies balsamea	Balsam Fir	13	B&B	6' Ht.	Unsheared
PG	Picea glauca	White Spruce	11	B&B	6' Ht.	Unsheared
PS	Pinus strobus	White Pine	13	B&B	6' Ht.	Unsheared
PS-R	Pinus strobus	White Pine	15	Bare Root	12-18" Ht.	
TO	Thuja occidentalis 'Techny'	Techny Arborvitae	7	B&B	6' Ht.	Unsheared
	Deciduous Understory Trees					
HV	Hamamelis virginiana	Witch Hazel	6	B&B	6' Ht.	Multistem
	Deciduous Shrubs					
AM	Aronia melanocarpa 'Autumn Magic'	Autumn Magic Black Chokeberry	9	Cont.	#5, 24" Ht.	4' O.C.
CR	Cornus racemosa	Gray Dogwood	6	Cont.	#5, 36" Ht.	10' O.C.
CR-R	Cornus racemosa	Gray Dogwood	16	Bare Root	12-18" Ht.	6' O.C.
CS	Cornus stolonifera 'Cardinal'	Cardinal Red Twig Dogwood	20	Cont.	#5, 36" Ht.	8' O.C.
CA	Corylus americana	American Hazelnut	12	Cont.	#5, 36" Ht.	8' O.C.
CA-R	Corylus americana	American Hazelnut	28	Bare Root	12-18" Ht.	6' O.C.
VD	Viburnum dentatum 'Ralph Senior'	Autumn Jazz Viburnum	11	Cont.	#5, 36" Ht.	6' O.C.
	Turf and Native Seed Mixes					
	Turf Seed Mix		7,202	SY	N/A	See Specification for Mix
	Native Seed		14,260	SY	N/A	See Specification for Mix

Native Plugs		QNTY.	ROOT	SIZE	COMMENTS / SPACING
Achillea millefolium	Common Yarrow	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant on upper slope of biofiltraton area
Anaphalis margaritacea	Pearly Everlasting	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant on upper slope of biofiltraton area
Asclepias incarnata	Marsh Milkweed	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant in bottom of biofiltraton area
Bromus ciliatus	Fringed Brome	112	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant on upper slope of biofiltraton area
Calamagrostis canadensis	Bluejoint	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant in bottom of biofiltraton area
Carex scoparia	Pointed Broom Sedge	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant in bottom of biofiltraton area
Carex stricta	Tussock Sedge	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant in bottom of biofiltraton area
Carex vulpinoidea	Fox Sedge	112	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant throughout biofiltration area including low and upper areas
Danthonia spicata	Poverty Grass	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant on upper slope of biofiltraton area
Doellingeria umbellata	Flat-topped Aster	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant throughout biofiltration area including low and upper areas
Elymus canadensis	Nodding Wild Rye	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant on upper slope of biofiltraton area
Elymus trachycaulus	Slender Wheatgrass	112	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant on upper slope of biofiltraton area
Elymus virginicus	Virginia Wild Rye	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant in bottom of biofiltraton area
Eupatorium perfoliatum	Common Boneset	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant in bottom of biofiltraton area
Eurybia macrophylla	Large-leaved Aster	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant on upper slope of biofiltraton area
Eutrochium maculatum	Spotted Joe Pye Weed	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant in bottom of biofiltraton area
Glyceria grandis	Tall Manna Grass	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant in bottom of biofiltraton area
Glyceria striata	Fowl Manna Grass	112	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant in bottom of biofiltraton area
Helianthus giganteus	Giant Sunflower	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant in bottom of biofiltraton area
Helenium autumnale	Sneezeweed	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant in bottom of biofiltraton area
Juncus tenuis	Path Rush	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant in bottom of biofiltraton area
Mimulus ringens	Blue Monkey Flower	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant in bottom of biofiltraton area
Monarda fistulosa	Beebalm	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant throughout biofiltration area including low and upper areas
Oligoneuron rigidum	Stiff Goldenrod	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant on upper slope of biofiltraton area
Ratibida pinnata	Yellow Coneflower	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant throughout biofiltration area including low and upper areas
Rudbeckia hirta	Black-eyed Susan	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant throughout biofiltration area including low and upper areas
Schizachne purpurascens	False Melic	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant on upper slope of biofiltraton area
Scirpus atrovirens	Dark Green Bulrush	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant in bottom of biofiltraton area
Scirpus cyperinus	Woolgrass	112	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant in bottom of biofiltraton area
Sorghastrum nutans	Indiangrass	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant throughout biofiltration area including low and upper areas
Solidago nemoralis	Gray Goldenrod	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant on upper slope of biofiltraton area
Solidago ptarmicoides	Upland White Aster	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant on upper slope of biofiltraton area
Symphyotrichum ciliolatum	Lindley's Aster	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant on upper slope of biofiltraton area
Symphyotrichum laeve	Smooth Aster	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant on upper slope of biofiltraton area
Verbena hastata	Blue Vervain	80	Round Tapered Plug	2" Dia x 5" Depth	24" O.C., Plant in bottom of biofiltraton area

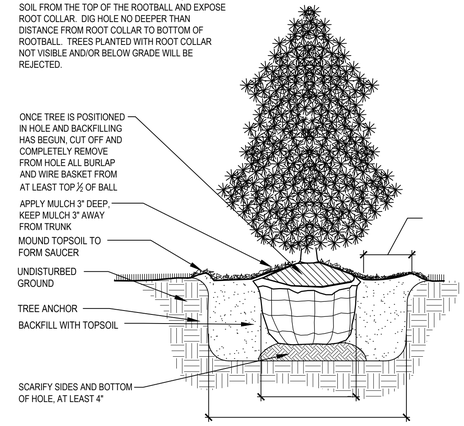
1 PLANT SCHEDULE

NTS

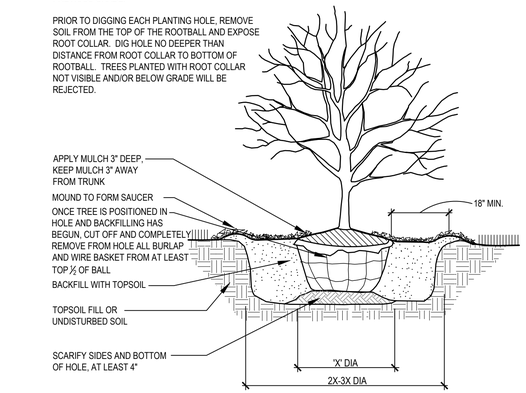


2 DECIDUOUS CANOPY TREE PLANTING

SCALE: 1" = 1'

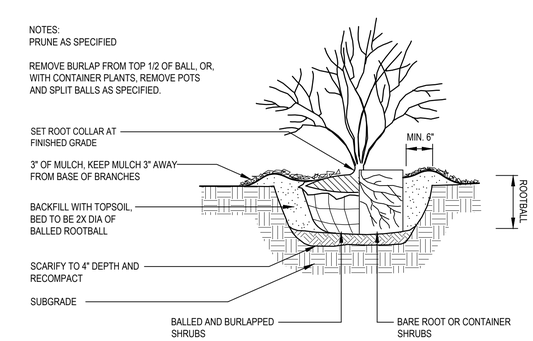


3 EVERGREEN TREE PLANTING



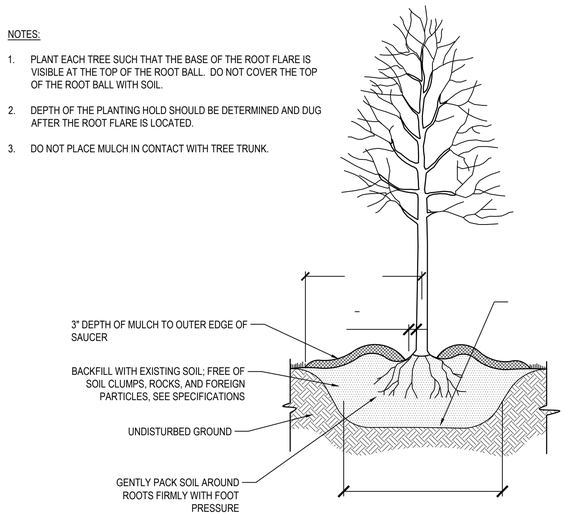
4 UNDERSTORY TREE PLANTING

SCALE: 1" = 1'



5 SHRUB PLANTING

SCALE: 1" = 1'



6 BARE ROOT TREE PLANTING

Foth
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UPEA ENGINEERS & ARCHITECTS

BID DRAWINGS
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FEMA DISASTER #4276
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HURLEY, WISCONSIN

IRON COUNTY WISCONSIN

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